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Kindergarten Teachers' Perceptions of and Expectations for School Readiness: Self-Regulation and Success

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Dissertation Approval

This is to certify that the thesis presented to us by Latoya McCrea

on the 9th day of July, 2013, in partial fulfillment of the requirements for the degree of Doctor of Psychology, has been examined and is acceptable in both scholarship and literary quality.

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Abstract

Early childhood education plays a very important role in influencing the success of a child later in the learning process. Because of this, scholars in the field of education have consistently sought to predict factors that ensure school readiness. Unfortunately, there is not enough information on factors that ensure school readiness and particularly on how teachers perceive school readiness. This study examines teachers' perceptions regarding the specific readiness skills and self-regulation needed by children entering kindergarten, as well as their familiarity with and their training in early childhood learning programs and executive functions.

The study reviews the current literature on school readiness and establishes the fact that school readiness is a proven indicator of future success. The study used a descriptive research design in which a survey questionnaire was distributed to 72 kindergarten teachers throughout the five boroughs of New York City. Data collected were analyzed using SPSS. Descriptive statistics were used to analyze the demographic characteristics and all other nominal variables. The results showed that most kindergarten teachers in New York are predominantly Early Childhood Education ECE majors, having taken more than 10 relevant courses. They have taught various grade levels for 11 to 15 years, with six to ten years teaching kindergarten. Their experience typically was gained in a general education classroom setting composed of, on average, 26 students from a variety of ethnic backgrounds.

The results also showed that New York City kindergarten teachers use a school-wide implemented curriculum that allows some degree of flexibility and provides activities that assists English Language Learners and special needs children. The study also established the fact that the assessment components of Fountas and Pinnel were the most widely used in guiding reading methods. The study concludes that most teachers lack familiarity with early childhood programs that pay attention to self-regulation. The study sets a foundation for future in planning and developing research on kindergarten teachers' perceptions on school readiness.

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For all of those that helped make this dissertation possible, you are appreciated! I hope the information in this dissertation will provide information that is useful to school districts and school administrators.

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Chapter I: Introduction

With the passage of the American Recovery and Reinvestment Act of 2009, also referred to as the No Child Left Behind Act (NCLBA), ensuring $5 billion for early childhood education, research focusing on factors that predict school readiness for later success became increasingly important (Liew, 2011). School readiness, which has been defined as "the state of child competencies at the time of school entry that were important for later success" (Snow, 2006, p. 9), includes both pre-academic and social-emotional competencies (Raver et al., 2007). Today, many children participate in preschool programs that aim to prepare them for kindergarten. NCLBA demands accountability from schools for students' academic performances (Ryan, Fauth, & Brooks-Gunn, 2006). School readiness is therefore an especially significant objective for children from disadvantaged backgrounds who may be lagging behind their peers in important areas of cognitive and social development (Winsler et al., 2008). Children who enter formal schooling but are lacking in the development of critical cognitive and social competencies present challenges to educators who are accountable for their academic success in kindergarten.

This study reviewed the current findings in neuroscience, particularly in relation to self-regulating executive functions and working memory, a set of mental constructs deemed crucial to a child's early cognitive development and school readiness (Blair, 2006; Diamond & Amso, 2008). There is a large body of scientific research which demonstrate a relationship between a child's capacity for the use of executive functions (EFs) and working memory (WM), and school readiness (Blair & Diamond, 2008;

McClelland et al., 2007). Executive functions can be defined as a "diverse group of cognitive processes that act in a coordinated way to direct perception, emotion, thought and action… responsible for a person's ability to engage in purposeful, organized, strategic, self-regulated, goal-directed behavior" (McCloskey, 2011, p. 1). EFs are self-regulatory cognitive processes (Garon, Bryson, & Smith, 2008) often defined as the directive capacities of the mind (McCloskey, 2011). Most literature on self-regulation has focused on social and emotional development without recognizing the importance of EFs in working memory and attention control (Welsh, Nix, Blair, Bierman, & Nelson, 2010; McClelland et al., 2007). However, studies recommending direct training on aspects of cognition such as inhibitory control and working memory for enhanced self-regulation have led to the design of early childhood educational programs such as the Tools of the Mind (TOM) curriculum (Bodrova & Leong, 2006), the Head Start Research-based, Developmentally Informed (REDI) program (Bierman, Nix, Greenburg, Blair, & Domitrovich, 2008) and the Promoting Alternative Thinking Strategies (PATHS) curriculum (Liew, 2011).

Kindergarten teachers have been found to play an important role in further developing children's school readiness. Lewitt and Baker (1995) suggest that, "Parents, teachers, and school administrators frequently make critical decisions for individual children based on their own notions of the concept [of school readiness]" (p. 130). In this regard, kindergarten teachers' perceptions of what would count as school readiness determines in large part how children are taught and evaluated in kindergarten. Unfortunately, a review of the literature on school readiness revealed that there is a lack of a clear consensus concerning what it is that constitutes school readiness. Further, the

measures used by parents and by administrators to assess school readiness often do not assess the skills identified by kindergarten teachers as essential to school success (Matthews, 2008). The purpose of this study is to determine the extent to which kindergarten teachers' perceptions of school readiness are in line with the current findings of neuroscience and also reflect an understanding of the importance of self-regulation, executive functions, and working memory for school readiness and later success in life.

Statement of the Problem

Although preschoolers are expected to be ready for kindergarten, there is no clear consensus on exactly what it is that constitutes readiness for school; additionally, there is no agreement concerning what should be done when children in kindergarten do not possess what teachers perceive to be the necessary readiness skills (Matthews, 2008). Steps in dealing with these problems include: identifying kindergarten teachers' misperceptions regarding the nature of readiness and their expectations of readiness for students entering kindergarten; exploring the possible disconnect between the teacher's misperceptions and the current cognitive neuroscience research about brain development in young children as well as the most effective ways to foster this development in school, and examining how consensus can be built with regard to what it is that constitutes readiness for school.

Defining school readiness. According to Matthews (2008), there is, as yet, no widely accepted standard definition of ready to learn or school readiness (Matthews, 2008). An extensive literature has been published on national school readiness programs implemented since the passage of the School Readiness Act in 2007, but there is much

disagreement within this literature concerning exactly what skills children need to master in order to be considered ready to start kindergarten. Because preschool teachers face rising pressure to be accountable for the preparation of children to begin kindergarten, inconsistent definitions of school readiness also have led to inconsistent assessment of school readiness.

Kindergarten teachers' perceptions of school readiness. Blair (2002) found that kindergarten teachers identify attentiveness, responsiveness and the ability to get along with others as essential skills that should be acquired before a child is considered ready to learn in kindergarten. Moore (2008) concluded that most teachers perceive social constructs such as obedience, personality, and the capacity to be tolerated by and to interact successfully with peers and adults as major contributing factors to kindergarten readiness. Kindergarten teachers were found to be most concerned with the social and emotional aspects of self-regulation (Moore, 2008). This study did not find any research on whether or not teachers extend the same level of concern to the self-regulatory executive functions and working memory capacities associated with academic skills acquisition. For the purposes of this study, it was crucial to determine teachers' perceptions of school readiness. Some schools in the private and public school systems have implemented interventions to facilitate school readiness by focusing on the development of self-regulatory skills (Liew, 2011). However, school readiness will need to start from kindergarten and this means that teachers' misconceptions concerning school readiness have to be corrected. As long as the problem of school readiness is not resolved, the interventions implemented to address perceived deficits in readiness are unlikely to have the intended impact on children. (Bierman et al., 2008).

Teachers' perceptions and neuroscience research. Little mention has been made in the literature regarding the extent to which teachers' perceptions about readiness for kindergarten align with current neuroscience research linking the development of self-regulatory executive functions and working memory to school readiness. It is important that teachers understand the current neuroscience research. Such an understanding would enhance their understanding of school readiness and lead to better assessment of readiness skills. Blair (2002) asserts that cognitive and behavioral readiness for school depends largely on the development of a child's executive regulatory systems during the preschool period. Developing EF skills in children aged 3 to 5 enables them to develop social maturity and competence by being able to organize thinking and behavior flexibly in a self-regulated manner. EFs have been found by researchers to be crucial in facilitating school readiness. Teachers' perceptions of the children's ability to use EFs should ultimately shape their perceptions of children's school readiness. It would be helpful to determine the extent to which teachers' understanding of children's EF skills affect their perceptions of school readiness (Bierman et al., 2008; Blair, 2006).

Background of the Study

Research has generally found that high-quality preschool interventions can improve school readiness among children (Blair, 2006; McClelland et al., 2007; Matthews, 2008). Under the 2007 Improving Head Start for School Readiness Act, schools are under increasing pressure to improve the quality of implemented readiness interventions. In New York City, one attempt to improve children's school readiness has been the stringent application of educational standards and administrative requirements in Head Start programs. Under the School Readiness Act, preschool programs are now

required to work with other providers to meet school readiness targets. The reforms under the same law required, among other things, raising minimum qualifications for teachers who will be evaluated for their effectiveness in implementing readiness programs (*New York Times*, 2012). Schools that rate below standard on performance measures will have their grant eligibilities reviewed.

Recent policy reforms now demand greater accountability from schools as well as from teachers. Given the fact that schools have to observe the established accountability standards, it is important to determine whether or not kindergarten teachers' perceptions of school readiness and the skills needed by children to be ready to learn are aligned with the scientific literature, which has clearly delineated the importance of self-regulatory executive functions and working memory (Matthews, 2008). The role of the kindergarten teacher in assessing a child's future performance cannot be overemphasized. Polis (2009) reported that kindergarten teachers were reliable evaluators of social, behavioral, and academic readiness of pre-kindergarten students. Further studies also substantiated the fact that teachers were more reliable evaluators of school readiness than test batteries or screening tools (NAEYC, 2009). Unfortunately, there is little research to demonstrate what the teachers' perceptions are with regard to school readiness. If in fact teachers are reliable sources of information about children's school readiness, then their perceptions about school readiness and the importance of this readiness should be described and understood in greater detail.

Research Questions

The researcher will conduct a survey of kindergarten teachers' perceptions of school readiness in selected elementary schools in New York City in order to address the following research questions:

1. What do kindergarten teachers believe are the most important skills that children should possess before entering kindergarten?
2. What are teachers' perceptions of the importance of executive functions in defining a kindergartener's readiness for school?
3. How do teachers' perceptions of school readiness compare with current trends in the literature, and how do they compare with findings in neuroscience?
4. What do kindergarten teachers perceive as the major difficulties created by a lack of school readiness?

Chapter 2: Literature Review

This chapter provides an overview of the literature on school readiness, particularly on readiness for kindergarten, and on teachers' perceptions of readiness for kindergarten. Additionally, this chapter will discuss how neuroscience contributes to educators' knowledge of cognitive development and the differences in views among teachers, parents and society. A brief historical perspective on early childhood education, followed by a historical overview of the rise of the concept of school readiness in the United States will also be provided in this chapter. Also included will be a brief overview of the most popular preschool programs currently used in schools.

School Readiness

Every generation of early childhood educators and theorists has introduced new insights about child development which have consequently shaped and influenced the definition of school readiness, including how school readiness is assessed. In the absence of a single, nationally recognized definition of school readiness, there exist multiple definitions of school readiness. Bracken and Nagle (2006) indicate that readiness embodies the acquisition of vital abilities or competencies that function as sources of successful outcomes for children. Although they define school readiness as the capability of children to acquire the skills or knowledge they need to learn effectively during their formal schooling beyond kindergarten, they note that this definition has some weaknesses; essentially, it fails to account for a child's individual attributes such as cognitive style and specific environmental experiences.

Brown (2008) views school readiness as "a set of interactions and transactions between people (children, teachers, parents, and other caregivers), settings (home, school, childcare), and institutions (communities, neighborhoods, and governments)" (p. 16). Brown examined how teachers perceive the impact of learning, language, social, and contextual variables that determine the successful transitioning of children into kindergarten. Results showed that most of the teachers in the study believed that partnerships with parents and school employees were greater determinants of success in kindergarten than the children's social and academic abilities. These results suggest that some teachers view school readiness as an outcome of the interactions between school staff, parents, and children. According to Brown (2008), school readiness involves the cognitive and behavioral features of a child's growth, environmental and family forces, abilities of the child, the child's adjustment to school, the characteristics of the child's community, and the educational structures provided for the child and his or her faamily..

The National Center for Early Development and Learning (1999) views the concept of school readiness as a construct dependent on the individual child's experiences: "One child's readiness may be another child's long ago accomplishment or another child's yet-to-be-achieved success" (p. 44). Therefore, the complexity of the construct of school readiness means that in order to enhance school readiness, it must be understood that readiness includes all of those resources and experiences children have acquired from a very early age (Pianta, 2002).

DiBello and Neuharth-Pritchett (2008) researched how all of the 50 states in the U.S. define and measure school readiness (p. 1). They reported that no single state had a general, official definition of school readiness, apart from an age-based qualification

mandate. In addition, evaluation or measurement of readiness differed among the 50 states. Since 2000, it has become apparent that even though the federal government mandates that every child should be ready to learn before beginning formal schooling, no specific nationwide benchmarks have been established (DiBello & Neuharth-Pritchett, 2008).

In the same way that theoretical views have differed, states have differed regarding school readiness measurement. Thirteen states, as well as New York City, have reported that they perform statewide or citywide evaluations when children transition into kindergarten. In New York City, children are evaluated for language and cognitive skills, physical health and motor coordination before they enter kindergarten (McGinn & McGinn, 2011). The kindergarten readiness measurement instrument used by New York City does not include domains of school readiness such as social competence and emotional maturity.

Although there are many different perspectives on the topic, there are common themes that most of the definitions share. School readiness is usually associated with children's skills mastery upon entry into formal schooling, including social, emotional, linguistic, and cognitive skills. For the purposes of this study, school readiness is viewed as the totality of the specific skills and personal attributes that a child needs to acquire in order to be considered ready for formal schooling. Specifically, school readiness involves at least five specific domains: social and emotional competence; physical health and wellbeing; language and communication skills; learning style, and cognition and general knowledge.

A study by National Center for Early Development and Learning (1999) surveyed a large sample of kindergarten teachers across the country. Teachers answered questions about particular difficulties they identified in their classrooms. In addition, this study examined teacher perceptions of how children performed and adjusted in kindergarten. As discovered in the study, "...up to 46% of the teachers reported that half their class or more had specific problems in any number of areas in kindergarten transition" (National Center for Early Development and Learning, 1999, p. 93). Several of the difficulties that the teachers mentioned were "difficulty following directions, lack of academic skills, disorganized home environments, and difficulty working independently" (Carr-Swofford, 2009, p. 12). The most frequently cited issue was, "difficulty following directions" (Mecham, 2007, p. 62).

The research of Lin, Lawrence, and Gorell (2003) also examined teacher perceptions about kindergarten readiness. The findings indicated that kindergarten teachers "...tend to view preparing children to satisfy social demands of schooling as a higher priority than academic skills development" (Mecham, 2007, p 18). It has been reported that younger teachers give more importance to academic abilities than do senior teachers (Mecham, 2007). A teaching standard was recommended and endorsed by political authorities in state education departments with little or no regard for teachers' opinions or perceptions (Grotewell & Burton, 2009).

Defining school readiness is a complex task, given the wide range of opinions about the topic. From the literature, it does not appear that children's readiness to enter school can be based solely on pre-academic skills such as writing their names, counting, and naming colors, or on what children can and cannot do as compared with others of the

same age. Rather, a flexible definitional approach is required, as well as an understanding that local perspectives are likely to influence its shaping.

Theories of Early Learning and Development

A brief description of the history of education shows that early childhood education has been influenced largely by early theorists. Jean Piaget was among the most important because he fundamentally influenced the field of child development and early childhood education. A psychologist from Switzerland during the 1920s, Piaget developed theories on the development of intelligence. Although this goal directed his research and writing, his theories have dramatically influenced educational policy-making as well (Morgan, 1999).

Perhaps most importantly for kindergarten teachers, Piaget found that children learn through the processes of assimilation and accommodation. Thus,

> When a child was introduced to a new phenomenon, she tries to understand it by assimilating it, or associating it with things she already knows. As the child gains experience with the new phenomenon, her way of thinking changes to take into account the characteristics of a new phenomenon (Segal, Bardige, Woika, & Leinfelder, 2010, p. 1).

Thus, children, according to Piaget, should be introduced to a new experience by relating it in some meaningful way to what they have already experienced. For decades, however, Piaget's ideas were questioned by numerous psychologists and educators. But as behaviorism began to decline in the 1960s, Piaget’s theories became more broadly recognized and accepted (Morgan, 1999). This recognition was accompanied by a critical analysis of his theory of the stages of development. Although a number of

scholars criticized the strictly organized stages of Piaget's model, many accepted the Piaget-based standard concerning the development of mental processes. In spite of these disagreements, according to Gullo (2005), the theories of Piaget have had an enduring influence on early childhood education and are applied frequently in programs of cognitive training, individual differences, and cooperative learning.

Lev Vygotsky (1978) was another influential early education theorist. According to his theories, children develop their capacities for conceptualizing through the emotional and mental support they get from their teachers, society members and parents. This means that for a child to develop, he or she must be subjected to certain social conditions that complement the child's internal developments, providing a mediating effect for his or her understanding of information, concepts and ideas. Language is one of the skills that can be enhanced by exposing a child to an environment using similar language. Vygotsky (1978) suggested that in learning, the child experiences a "proximal zone" of development within which internal development processes correlate with the social experiences to which the child is exposed.

Vygotsky had an effect similar in scope and influence to that of Piaget on early childhood education theories. He believed that cognitive development takes place in children through socialization or interaction with other individuals. Vygotsky's views contrasted fundamentally with those of Piaget when it came to the ways in which children learn and use language. Selbie, Clough, and Nutbrown (2008, p. 57) observe that although "Piaget believed that cognitive development led to the growth of language, Vygotsky viewed language as developing thought." Vygotsky argued that two-way communication with adults reinforces children's cognitive development (Selbie, Clough,

& Nutbrown, 2008). To Vygotsky, the central role of language in children's intellectual development was the result of their need for effectively receiving the transmission or flow of information in order to think effectively.

Early Childhood Education

The basic definition of early childhood education was originally promulgated by the American Kindergarten Society, which was founded by Friedrich Froebel. Another key founder of this group was Elizabeth Peabody. She helped to establish kindergarten, based on Froebel's kindergarten model, as an acceptable component of American education (Morgan, 1999). Peabody helped organize the 1876 Philadelphia Exposition at which a replica of a kindergarten helped promote Froebel's kindergarten model, among the first in the United States. She also organized the first kindergarten in the country that included instruction in English. Being a philanthropist, she generated resources for her projects, but her main goal was to promote compassion through benevolent kindergarten principles and traditions. Her humanitarian efforts resulted in the approval and implementation of kindergarten by public schools in the early 1900s.

Susan Blow, in collaboration with school administrator William Harris, established the first kindergarten in St. Louis. Together with Peabody, she drew attention to this groundbreaking Froebelian venture and subsequently guided and educated others (Morgan, 1999). The St. Louis's kindergarten system was eventually recognized as a blueprint for early childhood education.

Variations in the social, language, and cognitive capabilities of children upon transitioning into kindergarten were associated with children's immediate environments, physical wellbeing, ethnic affiliations and educational attainment of parents, including

their socioeconomic background. Enhancing accessibility to a premium centralized preschool is one particularly positive approach to take in preparing children for formal schooling. Several studies report that preschool can strongly develop social, emotional, language, and cognitive skills of children upon entry to kindergarten (Cuskelly & Detering, 2003; Muijs & Reynolds, 2005; King, 2009). The quality of the pre-school curriculum is vital, because the effects of preschool on the capabilities of children rely on the curriculum content as well as the competencies of their teachers (Cuskelly & Detering, 2003). This suggests that educators and policymakers should keep an eye on quality indicators such as the kinds of experiences and tasks children were exposed to in preschool as well as class size and teachers qualifications.

Early Learning Standards and Benefits of Early Childhood Education

What is known about preschoolers' learning has grown substantially during recent decades. The Early Childhood Education Assessment Consortium of the Council of Chief State School Office (CCSSO) defines early learning standards as those that "...describe expectations for the learning and development of young children across the domains of: health and physical well-being; approaches to learning; language development and symbol systems; and general knowledge about the world around them" (Gestwicki, 2010, 59). Almost all of the learning standards created were for preschoolers.

In the federal arena, Head Start established a Child Outcomes Framework in 2000, which is currently a major component of the assessment of the success of Head Start projects all over the country. Learning standards for prekindergarten were different from the standards for older children because the most important undertaking of young

children is to learn and improve foundational abilities—abilities that will guide them into successful learning at higher grade levels (Gestwicki, 2010). Gestwicki (2010), further mentions that both the National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE) and NAEYC report that early learning standards can be important components of first-rate, inclusive early childhood education services.

The 2007 Improving Head Start Act contains requirements intended to strengthen the emphasis on school readiness in the classroom. Early childhood education scholars argue that school readiness involves several different domains of child development (Miller, 2007). Dr. Ross Thompson remarked to the Subcommittee on Early Childhood, Elementary, and Secondary Education, that the growth of non-cognitive abilities, such as attention capacities, self-discipline, and inquisitiveness is as valuable to school readiness as is the development of language and literacy (Miller, 2007). Since September 2009, 47 states were implementing early childhood standards in creative arts, physical development, emotional and social development, social studies, science, and mathematics (Gestwicki, 2010).

The positive effects of early childhood education were shown by studies demonstrating that children who participate in preschool are more successful in primary school than children who did not acquire any preschool education. A number of researchers assert that students gain most, if not all, if their prekindergarten education begins prior to the age of 3 (Muijs & Reynolds, 2005). Early childhood education has been discovered to have both temporary and permanent benefits, such as less misbehavior later in life, lower chances of being held back, better academic performance, and higher

rates of graduation. Muijs and Reynolds (2005), in a study in the United States, reported that African-American children from vulnerable families who had received early care were more likely to continue schooling than their counterparts who did not receive premium early care.

In addition to involvement in early care programs, a number of determinants of the quality of these programs were found to have an effect on ultimate positive outcomes (King, 2009; Saracho, 2003). One study reported that children who had taken part in premium early care programs exhibited higher academic performance, better social capabilities, better conduct, and stronger student-teacher relationships than children who had taken part in substandard early care programs (King, 2009). According to Saracho (2003), the measures of quality which set the premium programs apart were lower employee turnover, greater teacher education, child-oriented communication, perceptive teachers, building a language-conducive setting, and effective leadership.

Despite the measurable effect of premium early care, Penn and Moss (1996) relate that the National Commission on Education [in Britain] found that nursery education was being ignored and children were entering school early and unprepared. In other words young pupils were being admitted to formal education settings before they had acquired adequate readiness skills (National Commission on Education, 1993).

As Sir Christopher Ball observed regarding the National Commission on Education report:

> This report presents a challenge to the nation—to parents, educators, employers, and parliament—indeed to our society as a whole. It demonstrates the importance of early learning as a preparation for

effective education to promote social welfare and social order, and to develop a world class workforce. (Ball, 1994, p. 6)

For Ball (1994), the most important role of early childhood education was as a means to improving children's capacity to learn, and also as a platform on which to build a stronger and better society.

The Five Dimensions of School Readiness and Development of Self-regulation

Table 1

EDI Domains, Sub-Domains, and Sample Items

EDI domain	Sub-Domain	Sample Item
Physical Health and well-being	Physical readiness for school day Physical independence Gross and fine motor skills	Arriving to school hungry Having well-coordinated movements Being able to manipulate objects
Social competence	Responsible attitude towards the surrounding people and showing respect Using various approaches to learning Eagerness to assimilate new information and explore new things	Ability to get along with other children Accept responsibility for actions Working independently Eager to explore new items
Emotional maturity	Pro-social behavior Anxious and fearful behavior Aggressive behavior Hyperactivity and inattention	Helps other children in distress Appears unhappy or sad Gets into physical fights Was restless
Language and cognitive development	Basic literacy Interest in literacy/numeracy and memory Advanced literacy Basic numeracy	Able to write own name Interested in games involving numbers Able to read sentences Able to count to 20
Communication skill and general knowledge	(No sub-domains)	Able to clearly communicate one's own needs and understand others Shows interest in general knowledge about the world

Note. Reprinted with permission from: Young, M. & Richardson, L. (2007). Early Child Development from Measurement to Action: A Priority for Growth and Equity. Washington, DC: World Bank Publications.

In recent years, educators and scholars have specified five domains of school readiness (Young & Richardson, 2007; Brown, 2008). Earlier models included only three domains: (a) cognitive, (b) socio-emotional, (c) and physical. Later, these three domains were expanded to include five developmental domains: (a) physical health and well-being, (b) social competence and emotional maturity, (c) learning styles, (d) language and communication abilities, and (e) cognition and general knowledge (Young

& Richardson, 2007). The physical health and well-being domain includes self-care abilities, physical disabilities, medical conditions, physical fitness, and motor skills.

According to Bronson and Merryman (2011), motor development and physical well-being are important factors defining a child's readiness to enter school. In their book, *NurtureShock*, Bronson and Merryman describe many issues affecting a child's normal learning capabilities. Readiness, in their view, is affected by many factors including dysfunctional school programs and incorrect social policies. In order to engage successfully in formal and informal learning, children are expected to have acquired gross, fine and sensory motor abilities. In addition, it is necessary to improve functional performance to sustain and promote improvement in intelligence scores and self-regulation.

The domain of social competence and emotional maturity involve sensitivity to the feelings of others, the capacity to express emotions in appropriate ways and the capacity to build strong relationships with other people. It is thought that the learning styles domain encompasses capacities such as imagination, persistence, receptiveness to and interest in new activities, and attentiveness. The language and communication domain includes emergent literacy and language skills that underlie the development of reading and writing. Last, the cognition and general knowledge domain involves the perception and recognition of the properties of objects such as shape; the identification of the connection between objects; and knowledge of social conventions (Brown, 2008).

Intellectual development is an important focus of early childhood education programs. However, intellectual development is dependent on emotional maturity and both combine to make learning possible (Childers & Matusiak, 1972). Emotional

maturity and mental development are not, however, necessarily demarcated by a child's chronological age. Childers and Matusiak (1972) indicate that intellectual capacity increases most rapidly before the age of four. This period is the most favorable time for facilitating a child's mental development. Consequently, preschool learning programs would be more effective if initiated during this early formative age range (Childers & Matusiak, 1972). Emotional maturity, although linked, is not necessarily a function of intellectual development, and must be addressed and measured differently by each teacher. This relationship is such that the presence of emotional maturity enhances intellectual development.

According to some researchers, preschoolers may display inappropriate behavior because of their over-abundance of emotion (Childers & Matusiak, 1972), which may result in socialization problems if not properly addressed. Childers & Matusiak (1972) go on to argue that attention should be paid to self-control. In order to understand the required degree of self-control, teachers evaluate a kindergartener's behavior in relation to their interactions with other people. If a child has acted inappropriately because of a slight misunderstanding, for example, then the teacher may consider that child ready to rejoin other lessons, depending on the circumstances of the misbehavior (Childers & Matusiak, 1972). One aspect of self-control, impulse control, is considered vital to the goal of effective socialization (Hair, Halle, Terry-Humen, Lavelle, & Calkins, 2006). In order to build the capability to better regulate his or her emotions and feelings, a child must gain experience and confidence in socializing with other children and in learning to handle differences. Confidence and self-regulating capabilities are essential prerequisites

for developing executive functions that facilitate childhood learning and enable children to adapt to different experiences.

Neuroscience has contributed immensely to an understanding of the significance of interactions, environments and experiences in improving cognitive development. According to Diamond and Amso (2008), neuroscience has demonstrated that cognitive development occurs through observations, experiences and interactions in different scenarios. Favorable environments should be provided by families and by kindergartens to expose children to new experiences in order to promote successful cognitive development. Although teachers and parents tend to focus on more easily observable and loosely defined social, emotional, and behavioral changes, Blair (2006) believes that neuroscience serves as a tool to help identify the fundamental factors contributing to a child's cognitive development. In addition, neuroscience can act as a guide for educators to the areas of children's brains that ought to be stimulated through repetition, experience and observations in order to successfully decode, store, and retrieve information to lay a foundation for academic success. This can lead to a new perspective on readiness which is focused on memory and brain functions, rather than merely on social maturity, style of processing environment, or on home.

Among the constructs that define a kindergartener's readiness, emotional maturity and self-regulation seem to be critical; they are considered the most important in defining a child's readiness to enter school. Emotional maturity is considered one of the most important aspects of development due to its influence in decision-making and modulating temperament. Emotional maturity governs the ability to inhibit emotional outbursts and

hence represents the exercise of self-regulation. Attentiveness, in and outside class, is defined by the capability of a child to concentrate, thereby requiring a high degree of self-regulation. Similarly, emotional maturity and self-regulation govern initiative and task persistence, some of the fundamental issues in learning. Without task persistence and without the capability to decide on what to do or what not to do, a child cannot concentrate, and therefore, cannot actively engage in formal learning. A child must demonstrate emotional maturity and self-regulation to be ready to participate successfully in the associated functions and activities involved in formal schooling.

Additional constructs important to school readiness are enthusiasm and eagerness to learn. To be ready for school, kindergarteners must demonstrate high degrees of enthusiasm and curiosity to learn and experience new ideas (Blair, 2006). The willingness to ask questions and the curiosity to acquire specific information is considered vital in determining a child's readiness to enter school. Enthusiasm, eagerness, and a willingness to engage informal learning environments form a foundation for interactions and relationships with adults. Other constructs that define a child's readiness are memory and reasoning (Blair, 2006), the latter of these involving the ability to solve problems and make associations. In order to gain and retain formal knowledge, children must also develop memory functions, specifically the ability to connect past events with the present (Blair, 2006).

Teachers often base their assessments of cognitive development capabilities upon children's performances in formal learning environments. On the other hand, parents tend to base their understanding of their children's capabilities to acquire cognitive skills using children's performances in social situations (McGinn & McGinn, 2011). In order for a

child to be ready for formal schooling, he or she must demonstrate a high degree of respect for others and this means that the child must possess a high degree of self-control and reasoning. Sensitivity involves understanding the situation of others, differentiating conditions, and developing empathetic feelings towards others. Children need to express and share their feelings and sentiments with others in order to develop friendships, or peer bonds and increase their socialization competence, which involves complex social, cognitive, and emotional funds of information accumulated in the process of previous social adaptation (Diamond & Amso, 2008).

Early academic capabilities also are essential for children about to enter school. Kindergarteners need to possess a number of academic skills and competencies in order to participate actively in formal learning offered in schools. The combination of these constructs and inter-relationships are essential in providing readiness evaluation programs for kindergarteners about to enter school. The manner in which kindergarten teachers conceptualize kindergarteners' readiness is influenced by the importance of children's growth and cognitive development. Emotional maturity is regarded as the most important component, especially due to its significance in regulating temperament, decision-making and reasoning. Emotional maturity and self-regulation promote a child's attentiveness, curiosity, engagements with others and eagerness to learn. Readiness is therefore based on the child's performance in terms of cognitive capacities and the emotional maturity of the child. Similarly, a child is considered ready to enter school if he or she demonstrates social maturity. This social maturity is achieved if a child is capable of engaging efficiently with others.

Sassu (2007) makes the claim that children have to possess a certain degree of social competence and emotional maturity before they enter formal schooling. As stated by Hartup (1992), the single best childhood predictor of adult adaptation is the extent to which a child gets along with other children.

The Carnegie Task Force (1994) however expressed a different opinion. According to this group, it is evident that children who are intellectually inquisitive and able to use language to communicate will more likely succeed in formal schooling than those who simply have well-developed social and emotional skills. In contrast, according to the findings of Dockett, Perry, and Tracey (2000), teachers and parents consider cognitive abilities as the second most essential domain after social competence and emotional maturity. Language and communication are interconnected, with the former being significant in promoting the latter. Some children, at a disadvantage because of linguistic background or because of economic disadvantage, require extra time to become competent in communication, especially due to the challenge of learning different languages.

A number of researchers emphasize that having healthy and normal physical development and motor coordination is crucial to school readiness. Lewitt and Baker (1995) found that at least seventy-five percent of teachers perceive physical wellbeing as an important component of school readiness.

Similarly, language and communication abilities were regarded as essential by most scholars and researchers. More particularly, they emphasized the capacity to communicate well with peers and teachers. In the study of Dockett et al. (2000), neither teachers nor parents named language as one of the most important domains of school

readiness, but the teachers did identify the importance of a child's capacity to follow instructions. Davies and North (1990) found that teachers perceive social skills such as self-care abilities and independence, as being more valuable than academic knowledge such as learning numbers and the alphabet, and identifying and understanding concepts or ideas. Rather, most teachers in the study believed that social and emotional skills are the most important domains of school readiness. Teachers also perceived physical health and good motor coordination, as well as the capacity to follow instructions and communicate skillfully with peers and adults, as vital abilities that children should have in order to succeed in formal schooling. Most of the teachers did not regard cognitive or academic abilities, even language acquisition, as key school readiness domains.

Self-regulation

Self-regulation can be viewed as a set of mental capacities responsible for cueing and directing aspects of perception, feeling, thought and action. (McCloskey et al., 2009; Kemple & Ellis, 2009). Self-regulation includes the child's ability to stay on task, modulate emotions, and control his or her level of activity and impulsivity (Barnett et al., 2008). Additionally, cognitive capacities, such as the ability to sustain attention and monitor one's thoughts are defining features of self-regulation. In the early childhood classroom, the need for self-regulation is greatest when there is a pause in structured, teacher-directed activities (Cassidy, Rucker, & Boon, 2003). Self-regulation is important when attempting to achieve a stated goal by means of initiation or when completing a given routine (Loeb et al., 2007). Additionally, when failure at usual activities occurs, self-regulation is crucial to maintaining decorum in the classroom (Barnett &Yarosz, 2006). The concept of self-regulation also includes capacities such as goal setting, self-

monitoring, self-activation, and the use of set goals to achieve intended purposes (Zimmerman & Schunk, 2011; McCloskey et al., 2009).

One of the skills that theorists have identified as critical to academic success is self-regulation; some aspects of self-regulation includethe ability to control emotions and behaviors, control attention, take initiative, work independently, and problem-solve (Bronson, 2000). In addition, working successfully within a group involves the ability to regulate emotions and control or inhibit negative and inappropriate behaviors. Research indicates that self-regulatory abilities are considered necessary for a child to be ready for kindergarten. A child's ability to regulate his or her emotions, impulses, and attention significantly predicts whether he or she will have to repeat kindergarten (Agostin & Bain, 1997; Knitzer, 2002).

Preschool Educational Programs

In some of the existing pre-school programs, such as Montessori or Waldorf, children are subjected to different philosophies to ensure that they are exposed to what are thought to be the best educational practices, especially those to promote development of their cognitive skills. For instance, the methods of Maria Montessori have been widely used by modern educators. The Montessori Method is based on an individual approach to each child: a child always chooses the didactic material and duration of learning, thereby developing in his or her own rhythm and direction. Thus, all capable learners are open to varied environments and new knowledge; children are not afraid of errors and the risk of failure does not discourage them (Montessori, 1994). Montessori pedagogy was often characterized as an individualized method, wherein a child's personality is the

keystone. Montessori believed in the intrinsic value of each child. According to Montessori, it was unacceptable to make comparisons when it came to children's skills and capacities. Children learn freely, without coercion, without external interference, or criticism. Montessori (1994) was convinced that encouragement and punishment were harmful to the internal orientation of a person; children should learn by following their own motivations. Montessori believed that the desire to take part in adult life was organically inherent in the nature of the growing child. The Montessori curriculum offers practical life experience, sensory awareness, language arts, mathematics and geometry, and cultural subjects which are joined together so a child can choose from a wide array of materials (Robledo, 2011).

The Waldorf program, also referred to as Steiner education, represents an alternative educational system based on the anthroposophical view of a person, involving sensuous knowledge, creative thinking, and empathy (Steiner, 1996). Waldorf schools work in accordance with the principle of the non-outpacing of a child's development. According to Waldorf's program, it is necessary to provide all the opportunities needed for a child to be able to develop in his or her natural way (Steiner, 1996). When it comes to equipping schools, preference is given to natural materials and unprepared toys, primarily for the development of children's imaginations. Much attention is paid to the spiritual development of all members involved in the educational process. According to this program, teaching preschool children should be based on imitation, on mobile games, and fairy tales (Steiner, 1996).

The Head Start REDI intervention has its roots in the traditional Head Start early childhood education program but has been enriched to make it more effective in the

teaching of literacy skills and engagement of social and emotional functioning. One of the major characteristics of REDI is that it uses the Preschool PATHS program to support enhancement of socio-emotional development. It integrates emotional and social attributes into a kindergarten's curriculum not only to enhance formal capabilities, but also to realize expected social competence. REDI, which was promulgated under a federal Interagency School Readiness Consortium grant, aims to promote social and emotional wellness among kindergarteners, and to this end, REDI provides Head Start programs that encourage creativity (Bierman et al., 2008). REDI program objectives include establishing emotional and social awareness by emphasizing relationships, personal skills, self-management, and teamwork among children at school. Kindergarteners in REDI programs gain knowledge on how to manage strong emotions, resolve conflicts, and engage positively with other children (Bierman et al., 2008). Fluid skills such as working memory capacity also are enhanced within these programs so that, as children learn, they are able to solve problems independent of the amount of knowledge they have been given.

Tools of the Mind

The Tools of the Mind (TOM) program is designed to promote self-regulated learning through verbal communication, theatrical play and attention to detail (Leong, n.d.; Diamond, Barnett, Thomas, & Munro, 2007). Additionally, the TOM curriculum promotes the capacity to achieve early literacy and mathematics skills while children focus on play (Barnett et al., 2006). Because self-regulation is integrally linked with children's academic performance, TOM focuses on helping and thus instilling kindergarten children's abilities to regulate their social, cognitive, and emotional

behaviors. According to the main postulates of this program, the teacher acts as a supervisor who regulates these behaviors, and eventually, engages all participants in the regulation process in the shared regulation (Diamond et al., 2007). The authors argue that in the future, such training will result in preschoolers' critical ability to control their own behavior. Thus, the main task of early childhood teachers is mastering the ability to use one's mental tools, in addition to engaging a classroom community in various activities intended to develop and improve children's ability to self-regulate (Diamond et al., 2007).

The TOM curriculum can be implemented in the preschool setting. Apart from self-regulation, this implementation can be aided by emotional regulation and play planning. Emotional regulation is a concept that involves individuals exercising control over their emotions with regard to experience and expression. The learning process, which is emotionally involving for students, has an effect on the child's cognitive interpretations. On the other hand, play planning is an instructional strategy that is used in enhancing self-regulation by giving children a chance to plan their plays. For the development of self-regulation and emotional regulation, play planning was deemed an essential and effective tool of the mind that should happen every day (Damon & Lerner, 2006). Lesson plans include the students' work, wherein students have detailed roles and actions; for example, students will have a scheduled play period lasting for the first few minutes of class. This startup activity positively affects students' behavior and readiness to work. Children alter the play program naturally, even when concentrating on game playing with other students during this scheduled time. Following completion of game-play, students may have a conversation about tests or other activities from the day.

The Learning plan for kindergarten using TOM is comparatively similar to play plans in the preschool setting regarding inclusion of self-regulatory functional development. The lesson plans permit the student to plan and complete work independently. Additionally, every center plan includes student's constructing a work product, which is then stored in a specified folder. Children are teamed with a partner, or "study buddy," to complete the assigned work. Study buddies help each other (a) to remember the work plan; (b) to check the rules for finding answers to specific questions; (c) to check that work was completed on time; and (d) to make certain all work was placed in the correct folder. Children are asked to recall facts from the day's lessons, and to write on paper what they have learned. Using writing and behavior analysis, teachers can confirm the exact capabilities of each student. Writing differences are indicated by each student's level of focus; many merely focus on the line patterns of words or letters, but others are capable of understanding the letter shapes, incorporating the alphabet in word recognition.

A wide variety of assessments are charted in the TOM programs, providing extensive opportunities for monitoring a child's school readiness (Diamond and Lee, 2011). The primary goal of the TOM program is developing the skills and talents of students in the early learning stage. TOM provides children with the tools needed to develop self-regulation capacities. Students also develop positive behavioral qualities that are thought to enable them to succeed after their formal education has concluded. Improvements of self-regulation, emotional regulation and cognitive regulation were also found to be an integral part of the TOM curriculum both at the kindergarten and at the preschool levels. Tools provided in the curriculum to help children learn to self-regulate

include scaffolds, mental tools, and self-regulation activities. Liew (2011) found that for TOM to be effective, teachers must be trained to assess proper allocation of the tools made available to their students.

The TOM curriculum focuses on the development of self-regulation along with the provision of knowledge, literacy and mathematical skills in ways that are communally mediated by peers as well as by teachers, primarily through the use of play activities. The most notable difference between the TOM curriculum and other early education programs is that TOM acknowledges that learning academic content can be difficult for children who do not have well-developed fundamental cognitive skills such as self-regulation. A major emphasis of the program therefore is to help children increase their capacities for self-regulation. The activities included in the curriculum also promote the growth of basic academic skills. With the TOM curriculum, teachers systematically help children to increase the self-regulation socially, emotionally, and cognitively by learning how to use a variety of mental tools. Diamond et al. (2007) evaluated the use of the TOM program and compared it with the Balanced Literacy curriculum (dBL) utilized in a low-achieving urban school district; they found that children taught with the TOM program significantly outperformed dBL children. Although both Tools of the Mind and dBL covered the same academic content, dBL did not include activities for the development of self-regulation and executive functions. Diamond et al. (2007) studied 147 preschoolers (62 in dBL and 85 in TOM), all of whom came from low-performing schools, for 1-2 years. After two years, a series of tests that measured executive functions were re-administered to the children. Based on the results, the authors

concluded that use of the TOM program substantially moved children with poor executive function into a more optimal state of academic achievement.

Many kindergarten teachers have different perceptions of the skills prekindergarten students should acquire prior to entering kindergarten. Their personal perceptions concerning the skills that young children should learn in order to cope successfully in a new school environment are not consistently in agreement with the official policies established by government agencies (Cappelloni, 2011). According to Cappelloni (2011), kindergarten teachers are predisposed to prioritize behavioral and social abilities, but official standards have a tendency to emphasize the early development of academic abilities. It has been revealed in the studies of Griffin and Harvey (1995) and May and Kundert (1997) that many teachers perceive social maturity as the most important skill children should have before entering kindergarten.

A number of studies have discovered that kindergarten teachers usually give more importance to the behavioral and social foundations of early education than to the more academically-oriented abilities. Piotrkowski, Botsko, and Matthews (2001) reported that kindergarten teachers regarded advanced knowledge and basic knowledge as less vital to successful outcomes in early education than the level of involvement and interest of young children. In particular, teachers place greater value on the capacity of children to interact or communicate, socialize, and follow instructions.

Lin, Lawrence, and Gorrell (2003) discovered that kindergarten teachers give greater value to training children to meet the school's social needs than to focusing on early academic abilities. The teachers emphasized their preference for kindergarten programs that focus on the capacity of children to follow instructions, socialize, express

themselves, and relate to others. Furthermore, as discovered in this study, teachers expect students to show self-discipline in the classroom, placing emphasis on precise task determination in such areas as problem solving, completing activities, and sitting silently, all of which can positively affect academic performance. Very few teachers, however, identified several major academic areas as being crucial, such as using a pencil, identifying different properties of an object, and knowing most numbers and letters of the alphabet (Lin et al., 2003).

The findings from the study of Cuskelly and Detering (2003) substantiated the reports of other researchers revealing that academic abilities were given low priority in terms of teachers' perceptions of school readiness. The respondents in this study emphasized social competence, language capabilities, and self-care as the most important skills children should have before going into formal schooling. The dimensions of school readiness that teachers believe are more important include social competence, language development, and physical health and wellbeing, or self-care abilities. Regarding school readiness, most of the teachers named social competence and emotional maturity, respectively, as the most important skills for children to have. Most teachers in this study also named academic aptitude in their definitions of school readiness; thus, even though it was less emphasized by some teachers in other studies or viewed as less important compared with the other domains such as social competence and emotional maturity, academic aptitude was believed to be vital to school readiness.

Sassu (2007) confirmed the findings of the abovementioned studies. According to Sassu, children must have three skills in order to have a successful transition to or adjust to kindergarten (p. 69):

1. Motivational and social skills: focus, attention, attitude, motivation. Self-esteem and self-awareness should help the child adjust effectively and confidently to the present social circumstances, and view himself or herself as part of a larger group and as an individual. Independence and self-reliance should be adequately present in order to help the child accomplish tasks or deal with current situations by himself or herself.
2. Cognitive skills: ability to critically and logically think or evaluate, vital memory capacities, auditory and visual skills, and ability to create and understand concepts, particularly those related to objects and numbers. A certain level of communication and language capabilities were vital to successful adjustment in kindergarten.
3. Physical wellbeing and motor coordination skills including physical endurance and healthy physical growth; other skills such as listening and visual capacity have an essential part to play in learning to read and write.

Teachers' perceptions of kindergarten readiness may have essential repercussions on teachers' behavior in the classroom, including their instructional strategies. As reported by Rimm-Kaufman, Pianta, and Cox (2000), teachers express concerns that many of their pupils have difficulty following instructions and completing tasks independently, as well as having inadequate academic abilities. Children entering kindergarten without adequate social learning and academic abilities are more likely to fail early on because their teachers may look for a specific degree of social skills deemed crucial to successful academic learning. Therefore, in order to reduce the likelihood of children entering kindergarten without the necessary skills, special and general education

teachers may more rigorously test children participating in early education programs (Rimm-Kaufman et al., 2000). Hence, the perceptions and expectations of kindergarten teachers for their students have consequences for children about to transition into kindergarten. These perceptions guide the provision of positive, comprehensive training for pupils with specific or special requirements. These attempts to help children become sufficiently prepared for kindergarten may be strengthened by readiness measurement tools.

A kindergarten readiness measurement tool has been developed by New York City as a part of its request for further federal funding through the Early Childhood Learning Grant (ECLG) program. According to Regents Chancellor Tisch,

> "Everything we know about literacy and our students' performance throughout their time in school points to the critical importance of early childhood education. By the time the first day of kindergarten comes around, many students were already far behind in developing essential language skills that were critical to learning, to read, write and solve problems. If we can identify these children and intervene early enough, we can provide them the support they need to catch up and succeed in the classroom" (McGinn & McGinn, 2011, para. 4-5).

This statement from an educator provides a glimpse into how school readiness was viewed in the educational sector of New York City. Specifically, language capabilities were seen as crucial to kindergarten readiness.

Teachers' Perception of Self-regulation

Because self-regulation plays such a critical role is early academic success, it is important to understand teachers' perceptions about the role of self-regulation in classroom learning. Foulks & Morrow (1989) reported that Kindergarten teachers indicated that listening to instructions and following directions, two behaviors highly dependent on self-regulation, were two of the most important skills related to academic success. However, it was found that at least 50% of children entering kindergarten did not to have the ability to follow directions and work independently (Rimm-Kaufnan et al, 2000).

Based on a national sample of 3500 kindergarten teachers, 46% of the teachers reported that at least half of the students in their classes had difficulty following directions; 34% of the teachers reported that at least half of their classes had difficulty working independently, and 30% reported that half of their classes or more had difficulty working as part of a group (Rimm-Kaufman et al., 2000). Pianta and LaParo (2003) found that following directions, working independently for a short period of time, and working as part of a group were the capacities that determined how amenable a child was to classroom instruction.

Summary of Literature Review

School readiness is a critical aspect of formal schooling and a proven indicator of future student success. Entering kindergarten can be a traumatic stage for young children and their families, especially given the various skills that children need to acquire in order to adjust successfully to their new school environments. The studies on teachers' perceptions of school readiness, and kindergarten readiness in particular, offer valuable

insights into early childhood education and child development. It is vital to consider and understand these findings and theories because they shape contemporary discourses in early childhood school readiness assessment. Because of the prevalence of diverse and opposing priorities in assessing school readiness, including a lack of clear agreement concerning its specific definition, school readiness remains a significant issue in national dialogues. Thus, defining school readiness has received a great deal of attention in contemporary studies in early education. This literature review also examined the perceptions of teachers towards readiness, their interpretations of readiness, and their perceptions of the contributions of readiness to children's academic and social competence. As gaps in early childhood performance have been increasingly emphasized in education reform discourse, and educational policy has been further codified, an array of early childhood education projects at state and federal levels are being carried out according to high standards of quality and competency that emphasize the importance of enhancing school readiness. Even though there has been broad acceptance of this objective, there is a wide array of perceptions, especially among teachers, about what constitutes school readiness. Studies on teachers' perceptions of skills, regarded to be critical for successful transitioning to kindergarten, have reported that attention must be paid to social and emotional skills, physical health and motor coordination, communication abilities, and capacity to follow instructions, with less emphasis on academic aptitude.

There was clear consensus among teachers about the value of social competence and emotional maturity in school readiness. The stress on social competence and emotional maturity indicates that teachers have a shared perception that intrapersonal and

interpersonal capabilities are the most crucial to successful, early, formal school enrollment.

Recent research on early childhood development emphasizes the role of self-regulation in school readiness (Barnett & Yarosz, 2006; Barnett et al. 2008; Bierman et al., 2008; Blair, 2002, 2006; Blair & Diamond, 2008; Diamond et al., 2007; Garon et al., 2008; Graziano, Calkins, & Keane, 2010; Liew, 2011). Although teachers usually do not specifically identify self-regulation as a major factor in school readiness, their reports of students' difficulties involved with paying attention and controlling emotions indirectly hint at its importance.

Chapter 3: Methods

Overview

The goal of the study was to ascertain the perceptions of teachers in relation to kindergarten students' school readiness and their expectations regarding those skills that these children should demonstrate prior to entering kindergarten. School readiness was found to be associated with the development of cognitive capacities such as self-regulation in children of kindergarten age. Therefore, self-regulation was a great predictor of a child's success in reading and mathematics in the future years (Blair, 2002).

For a child to achieve school readiness, he or she must be able attain social, emotional, cognitive, and language capabilities (Moore, 2008) that he or she could learn primarily from his parents and his peers, who can ultimately influence school success (Blair, 2002).

This chapter will review the methodologies followed for the completion of the objectives of this study. The research design, eligibility of respondents, data collection, and data analysis will be discussed in full detail in the following sections.

Research Questions. This study aimed to identify the perceptions of kindergarten teachers regarding school readiness. Specifically, this study aimed to:

1. Determine what kindergarten teachers believe were the most important skills that children should possess before entering kindergarten;

2. Identify the teachers' perceptions of the importance of executive functions in defining a kindergartener's readiness for school;
3. Identify the relationship between the teachers' perceptions of school readiness with current trends in the literature and with findings in neuroscience; and
4. Identify what kindergarten teachers perceive as the major difficulties created by a lack of school readiness.

Setting. The study was conducted in New York City, the largest school district in the United States. There were 1,043,886 enrollees for the school year 2010 to 2011 alone, topping Los Angeles which has 667,273 enrollees (American School and University, 2012).

The data collection took place in the five boroughs, the Bronx, Brooklyn, Staten Island, Queens, and Manhattan. According to the NYC Department of Education (2013a), there were a total of 993,903 total registrants for the most recent school year, 2012 to 2013. Brooklyn has the highest enrollment at 294,009 students, followed by Queens with 282,153 students. Bronx and Manhattan had 205,342 and 151,135 students, respectively. Staten Island had the least number of enrollees for 2012 to 2013 with 61,264.

Research Design. This study used a descriptive research design. A survey in the form of a researcher-designed questionnaire, based on a four-point Likert scale was employed to measure the degree of importance that kindergarten teachers placed on some characteristics of kindergarten readiness.

Sample/Participants

Kindergarten Teachers. The sample population for this study was kindergarten teachers, who were from identified elementary school districts in New York City. Approximately 200 New York kindergarten teachers, coming from the five boroughs in the city, were identified to be eligible to participate in the study and were sent a copy of the survey questionnaire. Seventy-two questionnaires were completed out of the 200 that were distributed; a 36% response rate.

Instrument

Surveys have been widely used in the field of education for many years. A survey is a method used to gather information from a sample, or a small group of individuals, taken from a homogenous population (Scheuren, 1990). Ideally, the sample is selected randomly using statistical methods, allowing everyone in the population an equal chance of being selected. It is composed of a standard set of questions that aims to develop a composite description of the population based on statistical methods applied on the sample.

For this research, a survey questionnaire was designed. It contained demographic questions and Likert-type scales to measure kindergarten teachers' perceptions of kindergarten readiness. The survey questions were designed to obtain teachers' perceptions about what they felt were essential skills about self-regulation that children need to possess in order to be successful. Moreover, it contained 75 self-report items, three open-ended questions, and four items regarding knowledge and familiarity of preschool programs. These were utilized to gather from the respondents, quantitative and qualitative information from the respondents in line with the research objectives.

Likert-type scales were used to gauge the respondents' perceptions. A Likert scale is a type of measurement that aims to capture the symmetric quantitative variation between two or more qualitative concepts for a series of interrelated statements (Carifio & Perla, 2007). The range between the concepts allows the researcher to capture the level or degree of feeling, generally agreement or disagreement, towards a certain item, situation, or statement (Burns & Burns, 2008, p. 245).

Five demographic categories were included in the survey instrument to gather information regarding respondents' backgrounds and experiences. The questions were designed to determine participants' ages and genders, educational backgrounds, experiences in teaching, and also the characteristics of the students they teach and the curricula that they use.

Participants were asked to rate their perceptions on school readiness. In addition, participants were asked to comment on five of the school readiness skills that they felt were most important, and the kinds of curricula or activities they used to address readiness. Collected data were used in analyzing teachers' perceptions on kindergarten readiness.

Procedures

Institutional Review Board approval. The researcher sought and received approvals from the New York City Department of Education Institutional Review Board (IRB) and the Philadelphia College of Osteopathic Medicine (PCOM) to be able to conduct this study in New York City Public Schools. Although the IRB "allows outside researchers to conduct studies within [their] system," proposing researchers must be able to ensure their study "does not compromise the privacy of [NYC] students and parents, or

disrupt the work of students, teachers, and administrators" (NYC Department of Education, 2013b).

To maintain the confidentiality of the identity of the respondents, the researcher made sure that the research instrument did not ask teachers to identify themselves in any way, or ask teachers to provide any information about their current teaching situations. Therefore, the survey responses remained anonymous and surveys will not be linked to teachers who complete them in any way.

Kindergarten teachers' survey. After the questionnaire was drafted, the researcher sent out the questionnaires with invitations to participate to 200 New York teachers. In the invitation, it was indicated that completion was optional. Those who responded were included as the final sample of respondents for this study. The researcher and another district school psychologist hand delivered the questionnaires to selected elementary schools in New York City. Questionnaires were placed in the kindergarten teachers' mailboxes. To ensure anonymity and confidentiality, a Kindergarten Survey Return Box was left in the school's main office where the teacher-respondents could leave completed survey questionnaires.

Approximately two weeks after the initial distribution of the research instrument, the investigator and another district school psychologist returned to the schools to send reminders and thank you notes to the participating teachers. Completed survey questionnaires, if then already available, were collected from the Kindergarten Survey Return Box. All the remaining, completed survey questionnaires were collected within two to four weeks after the reminder notices were delivered.

The total number of respondents who received the questionnaires was 200; 72 were returned, resulting in a less than expected responsive rate of 36%.

To ensure that the survey achieved optimal level of validity, the researcher opted to hand-deliver the questionnaires to the schools where the kindergarten teachers work, allowing them the freedom to answer the questionnaires. This removed any issues of internal validity because there was no one to influence the respondents' answers brought about by interviewer bias. However, the external validity may be an issue. The respondents were chosen according to their consent and availability to answer the instrument. Selection was not done randomly as it should have been to make a generalization applicable to New York City kindergarten teachers.

Variables for Analysis

Independent Variables. The independent variables in this study consisted of the topics identified in the survey. Demographic characteristics such as gender, age, current practice, length of time teaching, courses in early education, and number of student enrollment were also collected as part of the survey.

Dependent Variables. The dependent variables in this study were the kindergarten teachers' perceptions of (a) the necessity of particular skills for kindergarten readiness; (b) whether or not a skill can be taught to a child who is not at the readiness level; and (c) familiarity with preschool educational programs. These variables were gauged by a set of statements in which the kindergarten teachers answered, using a four-tier (1-Necessary, 2-Very helpful but not necessary; 3-Somewhat helpful but not necessary; and 4-Not necessary) and three-tier (1- I have heard of this program; 2-I have

heard of this program and have read about it; and 3-I have never heard of this program) Likert scale, and “yes or no” choices (Yes, can be taught; No, can’t be taught).

Data Analysis

The completed questionnaires were collated and results were encoded in a Microsoft Excel spreadsheet, and were then exported to Statistical Package for the Social Sciences (SPSS). SPSS is predictive statistical analysis software and the most widely used statistical program for social science research (Wellman, 1998). Descriptive statistics were used to analyze the demographic characteristics and all other nominal variables. Inferential analysis, particularly repeated measures of analysis of variance (ANOVA), was done through SPSS to identify the interrelations, if existing, between subgroups on a particular variable discussed in this study (Monash University, 2012).

Chapter 4: Results

This chapter presents the data analyses based on the survey responses of participating teachers. The respondents' demographic characteristics, perceptions of the necessity of skills on kindergarten readiness and self-regulation, and their familiarity with early education programs are presented and are followed by presentation of the results of the survey organized by the research questions that the survey attempted to address.

Demographics

Demographics are reported in Table 2. Participants in this study included 72 kindergarten teachers who were currently teaching kindergarten in New York City public schools during the 2012-1013 school year.

Of the 72 teachers that responded to the survey, 95.8% were female (69 respondents) and three were males. Regarding age of survey respondents, most were between 41 to 50 years of age (21 respondents, 29.2%), followed by those age 51 to 60 (17 respondents, 23.6%). The youngest respondent's age was between 20 and 30 and the oldest was 60 years old and above.

Table 2

Sample Demographics EDI

DEMOGRAPHIC	***N***	**%**
Gender		
Female	69	95.8
Male	3	4.2
Teacher's Age		
20-30	12	16.7
31-40	16	22.2
41-50	21	29.2
51-60	17	23.6
60 and older	6	8.3

Results of Statistical Analysis by Research Question

Research Question 1: What were some of the characteristics of the educational background and teaching experience of the teachers who responded to the survey?

As part of the survey, teachers were asked to indicate the number of years they have taught and the number of years they have taught kindergarten. Using these responses, the percentage of the total number of years spent teaching kindergarten was calculated. Teachers were also asked to indicate if they had taught other grades and if they had majored in early childhood education at the undergraduate or graduate level. Through the use of this information, the number of early childhood courses they had taken was determined. These variables help in gauging the expertise and experience of the respondent in teaching kindergarten students.

Most of the respondents have taught for 11 to 15 years (22.2%, 16 respondents). Some were relatively new to teaching with one to two years' of experience (9.7%, 7 respondents). Others had been in the profession for a long time, with eight respondents

(11.1%) teaching for more than 31 years. However, most of the respondents were new to teaching at the kindergartenlevel. Most have been teaching that level, for at most, a year (17 respondents, 23.6%), three to five years (16 respondents, 22.2%), or six to 10 years (15 respondents, 20.8). Only one respondent (1.4%) has taught kindergarten for at least 21 years. Therefore, it was not surprising that a great majority of the respondents have taught other grade levels apart from kindergarten (68 respondents, 94.4%).

A majority of the respondents were Early Childhood Education (ECE) majors (60 respondents, 83.3%), of which more than half have taken more than 10 ECE courses (27 respondents, 58.7%).

Survey results pertaining to research question 1 are reported in Table 3.

Table 3

Educational Background and Teaching Experience of Survey Respondents

DEMOGRAPHIC	***N***	**%**
Years in Teaching (in general)		
1 year	1	1.4
2 years	6	8.3
3-5 years	4	5.6
6-10 years	14	19.4
11-15 years	16	22.2
16-20 years	9	12.5
21-25 years	9	12.5
26-30 years	5	6.9
31+ years	8	11.1
Years in Teaching Kindergarten		
1 year	17	23.6
2 years	10	13.9
3-5 years	16	22.2
6-10 years	15	20.8
11-15 years	10	13.9
16-20 years	3	4.2
21-25 years	1	1.4
26-30 years	0	0
31+ years	0	0
Grade Levels Taught		
Other than Kindergarten	68	94.4
Kindergarten only	4	5.6
Early Childhood Education (ECE) Major?		
Yes	60	83.3
No	12	16.7
Number of ECE Courses Taken		
0 courses	4	8.7
1-2 courses	2	4.3
3-5 courses	4	8.7
6-10 courses	9	19.6
10+ courses	27	58.7

Question 2: What were some of the characteristics of the children being taught and the classrooms in which they were being taught?

Nearly all respondents (97.2%, 70 respondents) indicated that a majority of their kindergarten students are members of ethnic minority groups. Although some teacher reported teaching students with special education needs (20.8%, 15 respondents), the majority were teaching in classrooms that contained a majority of general education students with some students who were receiving special education services (66.7%, 48 respondents). Class size varied as well, from between 1 and 6 students (1.4%, 1 respondent) to at least 31 students (1.4%, 1 respondent). Most of the respondents currently teach about 23 to 24 students (21.7%, 15 respondents) and 25 to 26 students (33.3%, 23 respondents).

Table 4 summarizes teacher responses to questions about the ethnic backgrounds and educational status (general and special education) of the students being taught and the number of students being taught.

Table 4

Characteristics of the Students in the Kindergarten Teachers' Classrooms

DEMOGRAPHIC	*N*	%
Ethnicity of Majority of the Students		
From ethnic minority group	70	97.2
Caucasian	2	2.8
Status of Class Being Taught		
general education students who were not receiving additional services	6	8.3
students who were receiving special education or other services	15	20.8
mostly general education with some student receiving additional services	48	66.7
mostly student receiving additional services with some general education students	3	4.2
Class Size		
1-6 students	1	1.4
7-12 students	7	10.1
13-18 students	6	8.7
19-20 students	6	8.7
21-22 students	8	11.6
23-24 students	15	21.7
25-26 students	23	33.3
27-30 students	2	2.9
31+ students	1	1.4

Question 3: What were some of the characteristics of the curricula that teachers reported using?

Teachers were asked about the source of the curriculum, the amount of flexibility they had regarding modifying the curriculum, and whether or not the curriculum included activities designed to assist students with English as a second language, students with special needs, or to help develop self-regulation skills.

The majority of the respondents indicated that they follow a school-created curriculum (61.1%, 44 respondents); some indicated following a district-developed curriculum (31.9%, 23 respondents). More than half of the respondents indicated that they were able to use the curriculum with some degree of flexibility (54.2%, 39 respondents). More than half also indicated that the curriculum that they follow has activities that would aid English Language Learners (62%, 44 respondents) and children with special needs (55.1%, 38 respondents). Fewer than half of the respondents, however, reported that the curriculum they use includes activities that help children develop self-regulation skills (38.5%, 25 respondents).

Respondents indicated specific activities that they used with English Language Learners; these included pull-out services for ELL/ESL, using specialized software, photo cards, board games, and imagination learning. Meanwhile, multimedia programs and the use of Academic intervention services (AIS), Special Education Teacher Support Services (SETSS), and Orton-Gillingham writing lessons are used to assist children with special needs. In terms of developing students' self-regulation skills, some respondents specifically reported that they use the Positive Behavior System (PBS) and some indicated the use of behavioral response techniques such as token economy, timeouts, visual cues, character education, and accountable talk.

Table 5 summarizes teacher responses to questions about the curriculum they were using to teach children.

Table 5

Characteristics of the Curricula Being Used by Kindergarten Teachers

DEMOGRAPHIC	***N***	**%**
Curriculum Source		
Self-developed	1	1.4
School-wide	44	61.1
District-wide	23	31.9
Other	4	5.6
Degree of Flexibility of Curriculum Use		
No flexibility	11	15.3
Some flexibility	39	54.2
A lot of flexibility	22	30.6
Scope of Curriculum		
Assists English Language Learners		
Yes	44	62.0
No	27	38.0
Assists children with special needs		
Yes	38	55.1
No	31	44.9
Develops children's self-regulation skills		
Yes	25	38.5
No	40	61.5

Question 4: What do kindergarten teachers state as being the most personally rewarding or enjoyable aspect of being a kindergarten teacher?

Table 6 summarizes teachers' responses to the following open-ended question: "What is the most personally rewarding or enjoyable aspect of being a kindergarten teacher?" Open-ended responses were examined to identify specific themes mentioned in the responses.

The majority of the respondents' answers can be categorized as reflecting the theme of fostering the social and academic growth of their students (60 respondents, 83.3%). Other respondents answers could be classified with four additional themes,

namely: “Seeing students read and/or write on their own” (4 respondents, 5.6%); “Seeing progress in learning” (3 respondents, 4.2%); “Contributing to academic growth” (3 respondents, 4.2%); and “Observing students’ mastery of concepts” (2 respondents, 2.8%).

Table 4.5 lists the themes and the frequency of their mention by teachers.

Table 6
Specific Themes Mentioned by Survey Respondents Regarding the Most Personally Rewarding or Enjoyable Aspect of Being a Kindergarten Teacher

	N	%
Theme		
Seeing students’ progress in learning	3	4.2
Seeing students read and/or write on their own	4	5.6
Contributing to students’ academic growth	3	4.2
Observing students’ mastery of concepts	2	2.8
Fostering Students’ Social and academic growth	60	83.3

Question 5: What do teachers indicate to be the assessment benchmarks, standards, or procedures that they use to determine whether a child is ready for Kindergarten?

Table 4.6 summarizes teachers’ responses to the following open-ended question: “What assessment benchmarks, standards, or procedures do you use to determine whether a child is ready for Kindergarten?” Open-ended responses were examined to identify the specific benchmarks, standards and/or procedures mentioned in all of the responses.

Some of the respondents indicated using the Fountas and Pinnell benchmark assessment system (25 respondents, 35%) in determining whether or ot a child was ready for kindergarten. Others indicated using other forms of assessment systems, such as Baseline and Formative Assessment (12 respondents, 16.6%), DRA Assessment (10 respondents, 14%), Early Childhood Language Assessment System (5 respondents, 6.9%)

and 100 Book Challenge (1 respondent, 1.4%). Ten respondents (14%) indicated that they did not use any system of assessment.

Table 7 lists all of the benchmarks, standards and procedures listed by respondents and the frequency of their mention.

Table 7

Specific Themes Mentioned by Survey Respondents Regarding Benchmarks, Standards or Procedures Used to Determine Whether a Child was ready for Kindergarten

	N	%
Theme		
100 Book Challenge	1	1.4
Early Childhood Language Assessment System (ECLAS)	5	6.9
Record and Print Awareness	5	6.9
Everyday Math (EDM)	6	8.3
DRA Assessment	10	14
No assessment	10	14
Baseline Assessment, followed by formative assessment throughout the year	12	16.6
Fountas and Pinnell	25	35

Question 6: What do teachers say about how children's lack of readiness skills affect them as a teacher and affect their instructional planning?

Table 4.7 summarizes teachers' responses to the following open-ended question: "How does children's lack of readiness skills affect you as a teacher and your instructional planning?" Open-ended answers of all respondents were examined to identify whether or not their students' lack of readiness affects a teacher and his or her instructional planning. According to majority of the respondents, the lack of readiness skills in their children affects them, usually negatively and particularly with their instruction planning. Some examples of how it affects them include: (a) adjusting current

instruction techniques to meet the students' needs, which often (b) causes the limiting of the amount of direct instruction, and (c) negatively affects their pace of achieving yearly goals; this is especially due to (d) the necessity of teaching readiness skills and reviewing concepts that are supposedly taught to the students, and (e) the application of difficult benchmark tools for such students.

Table 8 identifies the number of teachers who perceived whether or not such event has a significant effect to their instructional planning.

Table 8

Whether or not Children's Lack of Readiness Affects Teachers and Their Instructional Planning

	N	%
Themes		
Has a significant effect	30	41.7
Not an issue	5	6.9

Question 7: What skills do teachers indicate as necessary for readiness for Kindergarten?

As part of the survey, teachers were provided with a list of 42 readiness skills generated from a review of the literature on skills thought to be critical for Kindergarten readiness and asked the following question: "How necessary do you think each of the following is for readiness for Kindergarten?" Teachers were asked to rate each readiness skill using a four point scale as follows: "Necessary," "Very Helpful but Not Necessary," "Somewhat Helpful but Not Necessary," and "Not Necessary."

Based on Table 9, most of the skills were found to be necessary in indicating whether or not a child was ready for kindergarten; most were very much considered to be

helpful, but not necessary. Only two skills were rated by more than a quarter of the respondents as being somewhat helpful but not necessary to kindergarten readiness; 20 respondents (27.8%) believe that "understanding concepts of time/associating activities with time of the day" and 19 respondents (26.4% believe that "anticipating what is going to happen next in class" were somewhat helpful but not necessary. Table 9 summarizes teachers' responses for each readiness skill.

Table 9

Teacher Levels of Endorsement of the Essential Nature of General Behaviors that Reflect the Effective Use of Executive Functions

	Necessary		**Very helpful but not necessary**		**Somewhat helpful but not necessary**		**Not necessary**
Skill	***n***	**%**	***n***	**%**	***n***	**%**	***N***
1. Communicating needs in primary language	58	80.6	10	13.9	4	5.6	0
2. Taking turns/sharing	49	68.1	23	31.5	0	0	0
3. Not being disruptive	51	70.8	19	26.4	2	2.8	0
4. Listening to a story or poem for 10 minutes without restlessness	43	59.7	22	30.6	7	9.7	0
5. Following specific directions	53	73.6	16	22.2	3	4.2	0
6. Expressing needs/thoughts	55	76.4	16	22.2	1	1.4	0
7. Being sensitive to other children's feelings	43	59.7	23	31.9	6	8.3	0
8. Problem Solving	38	52.8	26	36.1	6	8.3	2
9. Maintaining positive behavior	48	66.7	22	30.6	2	2.8	0
10. Complying with the requests of teachers and authority figures	49	68.1	21	29.2	2	2.8	0
11. Knowing how to get along with others	48	66.7	21	29.2	3	4.2	0
12. Sustaining attention and effort with difficult tasks	36	50	26	36.1	9	12.5	1
13. Acting responsibly	39	54.2	23	31.9	8	11.1	2
14. Exhibiting self-control	52	72.2	14	19.4	6	8.3	0
15. Working independently	36	50	25	34.2	10	13.7	1
16. Transitioning from one activity to another without problems	42	59.2	21	29.6	7	9.9	1
17. Adjusting to new situations without being fearful	31	43.1	28	38.9	13	18.1	0
18. Demonstrating independence by completing activities/tasks on own	35	48.6	25	34.7	10	13.9	2
19. Following two step directions	36	50	27	37.5	8	11.1	1
20. Modifying behavior when provided with verbal directions	48	66.7	18	25.0	6	8.3	0
21. Seeking out an adult if unable to handle social situations	45	62.5	21	29.2	6	8.3	0
22. Respecting the rights of others by keeping hands to self/keeping to own "space".	56	77.8	14	19.4	2	2.8	0
23. Separating from parent without anxiety	41	56.9	26	36.1	5	6.9	0
24. Interacting cooperatively with others in groups	45	62.5	23	31.9	4	5.5	0
25. Understanding word meaning/using appropriate vocabulary	30	41.7	31	43.1	8	11.1	3
26. Reading three-letter sight words	34	33.3	26	36.1	15	20.8	7
27. Showing initiative: beginning tasks on own	31	43.7	24	33.8	13	18.3	3
28. Writing first and last name	39	54.2	23	31.9	10	13.9	0
29. Identifying colors and basic geometric shapes	43	59.7	23	31.9	5	6.9	1
30. Writing both upper and lower case letters	30	41.7	29	40.3	9	12.5	4
31. Speaking in sentences of 5 or more words.	34	47.2	26	36.1	11	15.3	1

Skill	Necessary		Very helpful but not necessary		Somewhat helpful but not necessary		Not necessary
	n	%	*n*	%	*n*	%	*N*
32. Knowing most letters names	43	59.7	21	29.2	7	9.7	1
33. Identifying numbers 1-10	45	62.5	17	23.6	9	12.5	1
34. Counting to 20 or above	32	44.4	28	38.9	9	12.5	3
35. Retelling familiar stories	34	47.2	26	36.1	8	11.1	4
36. Producing rhyming words	27	37.5	28	38.9	13	18.1	4
37. Identifying major body parts	35	48.6	28	38.9	8	11.1	1
38. Naming the days of the week	33	45.8	23	31.9	13	18.1	3
39. Anticipating what was going to happen next in class	20	27.8	29	40.3	19	26.4	4
40. Recognizing and stating similarities and differences between objects	30	41.7	27	37.5	13	18.1	2
41. Understanding concepts of time/associating activities with time of the day	22	30.6	24	33.3	20	27.8	6
42. Telling a story of their own	34	47.2	24	33.3	11	15.3	3

Question 8: Do Kindergarten teachers think that self-regulation executive functions can be taught to a child who is poorly self-regulated?

As part of the survey, teachers were provided with a list of 33 self-regulation executive functions proposed by McCloskey and Perkins (2012) and asked the following question: "Do you think the following could be taught if a child does them poorly?" Teachers were asked to rate each self-regulation skill using the following dichotomous scale: "Yes, Can Be Taught," or "No, Cannot Be Taught." Respondents indicated that they think that a great majority of the self-regulation skills can be taught to kindergarten students who initially fail to achieve them. In fact, all respondents (100%, 72 respondents) believe that skills such as "Making good choices and decisions" and "Getting the steps right in tasks, putting things in the right order" may be taught to kindergarten students. However, some of the respondents also believe that not all skills may be taught to the children. For example, 25 respondents (35.2%) indicated that "Accurately estimating how difficult a task is going to be" is a skill that cannot be taught. Table 10 summarizes teachers' responses for each self-regulation skill.

Table 10

Teacher Opinions about Whether Self-Regulation Skills Can Be Taught

	Yes, can be taught		**No, cannot be taught**
Self-Regulation Skill	***N***	**%**	***N***
1. Being aware of surroundings (n = 72)	70	97.2	2
2. Paying attention to instruction	66	91.7	6
3. Sustaining attention long enough to complete tasks	59	83.1	12
4. Putting effort into completing tasks	66	93.0	5
5. Getting started on tasks without prompting	68	94.4	4
6. Resisting acting on impulse	56	78.9	15
7. Stopping when told to do so	69	97.2	2
8. Interrupting ongoing activity when asked to do so	68	97.1	2
9. Being flexibly open to changes in routines	66	94.3	4
10. Shifting from one activity to another without problems	70	95.9	0
11. Keeping behavior within the limits set for an activity	70	95.9	1
12. Having a good sense of balance about things (for example, not too silly but not too serious)	58	82.9	12
13. Checking work for errors	68	94.4	4
14. Correcting errors when they were found	71	98.6	1
15. Anticipating what was going to happen next in class	68	95.8	3
16. Accurately estimating how difficult a task was going to be	46	64.8	25
17. Accurately estimating amount of time needed to complete tasks	47	68.1	22
18. Analyzing problems or situations when necessary	66	93.0	5
19. Making comparisons and evaluate the adequacy of task performance	60	85.7	10
20. Making associations between what was learned and what was now being taught	68	97.1	2
21. Generating new solutions to problems that have not been seen before	65	92.9	5
22. Making a plan for accomplishing a project or assignment	67	94.4	4
23. Organizing work on projects and other assignments	66	93.0	5
24. Making good choices and decisions	71	100	0
25. Identifying which of two activities was the more important to do right now	66	94.3	4
26. Having a good sense of time	63	88.7	8
27. Maintaining a good work pace	65	91.5	6
28. Using learned routines effectively	70	98.6	1
29. Getting the steps right in tasks, put things in the right order	71	100	0
30. Holding onto information (not require a lot of repetition of directions)	61	87.1	9
31. Working with information in mind without needing to write things down	56	81.2	16
32. Knowing what information to store for later use	59	85.5	10
33. Recalling important information without being asked to do so	62	88.6	8

Question 9: To what extent do Kindergarten teachers indicate that they are familiar with Kindergarten educational programs that attempt to increase children's self-regulation capacities?

As part of the survey, teachers were asked to indicate their degree of familiarity with four early childhood educational programs that attempt to increase children's self-regulation capacities. A large majority of the respondents indicated they are not familiar with the Tools of the Mind program (77.3%, 51 respondents), the Waldorf Program (69.7%, 46 respondents), and the REDI (80%, 52 respondents). For these same programs, only a small percentage indicated they had heard about and read about them. Of the four early childhood programs, the Montessori Curriculum was the most familiar to the respondents; 69 percent indicated that they had heard and read about it. Only two respondents indicated that they were not familiar with this particular program. Teacher responses are shown in Table 11.

Table 11
Teachers' Degree of Familiarity with Early Childhood Programs that Attempt to Increase Children's Self-Regulation Skills

	I have heard of this program		**I have heard Of this program and have read about it**		**I have never heard of this program**
Program	***N***	**%**	***N***	**%**	***N***
Tools of the Mind (n = 66)	6	9.1	9	13.6	51
The Montessori Curriculum	19	26.8	49	69.0	2
The Waldorf Program	10	15.2	10	15.2	46
REDI	6	9.2	7	10.8	52

Question 10: Do Kindergarten teachers indicate that they have attended training that addressed the topic of executive functions and childhood development?

As part of the survey, teachers were asked if they had attended any training that addressed the topic of executive functions and early childhood development. Of the 69 teachers that responded to this question, 12 (17.4%) indicated that they had attended training on the topic of executive functions, whereas 57 (82.6%) indicated that they had not attended training on the topic of executive functions. Teacher responses are shown in Table 12.

Table 12

Teachers' Attendance of Trainings on Topic of Executive Functions

	Yes		No	
	N	%	*n*	%
Has Attended Training	12	17.4	57	82.6

Chapter 5: Discussion

For this study, kindergarten teachers from the five boroughs of New York City were asked to complete a survey questionnaire. The questionnaire aimed to identify the demographic and professional characteristics of the respondents, to measure their perceptions of the necessity of certain skills and behaviors in determining kindergarten readiness, and to determine their perceptions about self-regulation and whether or not it can be taught in kindergarten, and to assess their familiarity with early childhood development curricula that emphasize the development of self-regulation executive functions.

Summary of Results

Teacher Characteristics. The first research question asked about the educational backgroundsand teaching experiences of kindergarten teachers in New York City. Seventy-two teachers throughout New York City responded to the survey. Most of the teachers responding to the survey were more experienced educators, with only 15% indicating that they had been teaching for five years or less. Although most of the respondents had been teaching for six years or more, a majority were relatively new to teaching kindergarten, with 59.7% indicating that they had been teaching kindergarten for only five or fewer years. Although the majority of the respondents indicated that they were Early Childhood Education majors (83.3%), and a majority (58.7%) indicated having taken more than 10 courses in this field, nearly all respondents (94.4%) indicated that they had taught grades other than kindergarten. Taken together, these responses suggest the following: (a) it is very difficult to obtain a kindergarten teaching position as

a first teacher assignment; (b) teachers who are trained at other levels return to school after five or more years of teaching to attain their certification in early childhood and secure a position as a kindergarten teacher; and/or (c) teaching kindergarten has been perceived historically as less desirable than teaching higher grades.

Student Characteristics. Respondents also were asked about the characteristics of the students they teach in the second research question. The majority of the respondents (55%) indicated that they teach 23 to 26 students; nearly all teachers indicated that they teach in classrooms where the majority of students come from various ethnic minorities (94.7%), and a majority of the teachers indicated that they taught in a general education setting in which some students were receiving additional educational services (66.7%).

Kindergarten Curriculum Characteristics. The third research question examined the characteristics of the curriculum used by the teachers. Although all of these teachers are employed by the New York City Department of Education and are required to use the curriculum specified by the department, questions about curriculum use produced a variety of responses. Almost two-thirds of the kindergarten teachers reported using a school-wide curriculum (61.1%) compared with nearly one-third who indicated that they are using a district-wide curriculum (31.9%) It is possible that some respondents who indicated that their curriculum is a school-wide curriculum were actually using the district-wide curriculum. Although most teachers indicated that they are using district or school curricula, a large majority (84.8%) reported having some or a lot of flexibility in implementing the curriculum.

Although many of the respondents indicated that the curriculum they use includes activities that offer assistance to English language learners (62%) and special needs children (55.1%), substantial numbers of respondents indicated that the curriculum did not provide activities that assist ELL/ESL students (38%) or provide activities that assist students with special needs (44.9%). Conversely, more teachers indicated that these same curricula do not have activities that would help develop children's self-regulation skills (61.5%), compared with 38.5% who said that the curriculum did include such activities.

Some of the respondents indicated that they make use of additional educational activities or services to enhance the effectiveness of the curriculum that they use in teaching English language learners and special needs children or to develop students' self-regulation skills. Some of the activities specifically mentioned by teachers included the following: specialized software, photo cards, board games, and imagination learning for ELL/ESL students; multimedia programs and the use of AIS services, Special Education Teacher Support Services (SETSS), and Orton-Gillingham writing for special needs students; other activities included Positive Behavior System (PBS) and behavioral response techniques such as token economy, times, visual cues, character education, and accountable talk for teaching self-regulation skills.

The SETSS mentioned by some teachers is "specially-designed and/or supplemental instruction provided by a special education teacher [that] can help [special needs children to] stay in the general education classroom" (NYC Department of Education, 2013, para 4). There are two approaches in STSS: direct and indirect. In direct service, the student is taught in a general education classroom but is pulled-out a

few times a week to work on targeted skills using specially designed instruction, usually delivered in small groups of up to eight students. In indirect service, the general education teacher receives consultation to help formulate or modify instructional techniques and strategies, as well as to adjust learning environments and monitor the progress of at-risk students (United Federation of Teachers, 2013; Kinney, 2009).

The Orton-Gillingham Approach mentioned by some teachers is a "language-based, multisensory, structured, sequential, cumulative, cognitive, and flexible" (Sheffield, 1991, p. 41) approach to reading instruction "for use with persons who have difficulty with reading, spelling, and writing of the sort associated with dyslexia" (Academy of Orton-Gillingham Practitioners and Educators, 2012, p. 1). It is a one-on-one student-teacher instruction focused on addressing the student's reading, writing, and spelling difficulties.

The Positive Behavioral Support mentioned by some teachers is an "empirically validated, function-based approach to eliminate challenging behaviors and replace them with pro-social skills" (Cohn, 2001, p. 1). Schools are required to conduct a form of PBS, particularly Functional Behavioral Assessment (FBA), for students who are exhibiting conduct problems and therefore are at a high risk of expulsion, suspension, or alternative school placement. PBS has three-tiers, each with a specifically developed intervention. In the primary intervention (Tier I), all students in a school are exposed to the same level of intervention; about 80 to 85% of students not at risk for behavioral problems, are expected to respond positively to the program (Burke, Ayers, and Hagen-Burke, 2004, p. 66). Those who do not respond well to the primary intervention are provided secondary (Tier II) intervention, which is provided in small groups (Nelson et

al., 2002). Those who still display disciplinary problems after receiving secondary intervention are recipients of the tertiary (Tier III) intervention, an individualized intervention that addresses the specific problem behaviors and specific social and emotional strengths of the student (Nelson et al., 2002).

Personal Rewards of Teaching Kindergarten. The fourth research question asked teachers to indicate what was personally rewarding or enjoyable about being a kindergarten teacher. The open-ended nature of the question necessitated qualitative analysis of the responses. Response analysis indicated five themes. The majority of the answers mentioned fostering the social and academic growth of students. Responses indicated that the large majority of the teachers feel fulfilled when they know they have contributed to their students' social growth and to their academic growth (83.3%).

Assessments Used to Determine Kindergarten Readiness. The fifth research question asked teachers about the assessment benchmarks, standards, and procedures they were using to determine a child's kindergarten readiness. A majority of the respondents (35%) indicated using the assessment component of the Fountas and Pinnell guided reading method. Specifically, these respondents were referring to the Benchmark Assessment System (BAS) (Fountas & Pinnell, 1995). The BAS is used to determine a student's reading skill level (Heinemann, 2013).

Other teachers indicated using baseline and formative assessments and the Developmental Reading Assessment (DRA). In baseline assessment, the teacher classifies the child's skills and abilities within the first two months of school. The assessment addresses language and literacy, mathematics, and social and personal development to help identify what a child can do when starting school and to aid teachers

in planning lessons and measuring progress (Baseline assessment, 2012). DRA Assessment, on the other hand, is an assessment tool that is individually administered by teachers to students to identify a student's level of reading skills (Scholastic, 2013; Phoenixville Area School District, 2011).

Other assessments that teachers listed included: Everyday Math (EDM), Record and Print Awareness, Early Childhood Literacy Assessment System (ECLAS), and the 100 Book Challenge.

Effect of Lack of Readiness. Question six asked about the effect of students' lack of readiness skills. A majority of the teachers indicated that the lack of readiness skills exhibited by students negatively affects their ability to teach effectively. This effect, as the responses indicated, was the need to modify or adjust any existing lesson plan to meet the needs of students lacking readiness skills. Additional comments included: having to re-teach readiness skills that should have been learned prior to entering the class; reviewing and back-tracking to re-teach what was already taught; and applying new or existing interventions to ensure that the students were on the same level of understanding. Many respondents noted that having to make these accommodations for students who lack readiness sets them back in their efforts to reach yearly goals. One of the teachers responded that the NYC Department of Education's (DoE) new Common Core benchmark was difficult for students lacking readiness skills. The Common Core Standards were adopted by NYC schools in 2009 and launched in 2010. They were designed to inculcate a "common understanding for students, parents and educators about what students should know and be able to do by the time they graduate high school to succeed in college and careers" using a set of standards that were "fewer, clearer and

higher than most state standards, and include rigorous content and application of knowledge through higher order skills" (NYC DoE, 2013, para. 4). In the view of this specific teacher, the difficulty with the standards when applied to kindergarten students lacking readiness skills is the rigorous nature of the content.

Teacher Perceptions about Skills Necessary for Kindergarten Readiness. The seventh research question examined teacher perceptions about the skills that are necessary for a student to be regarded as *kindergarten ready*. There were 42 listed skills that teachers were asked to judge as necessary, as helpful but not necessary, as somewhat helpful but not necessary, or as not necessary for readiness for kindergarten. The skills that were identified as necessary for readiness by the largest majority of the teachers included: communicating needs in primary language (80.6%); not being disruptive (70.8%); following specific directions (73.6%); expressing needs/thoughts (76.4%), exhibiting self-control (72.2%); and respecting the rights of others by keeping hands to self/keeping to own space (77.8%). Each of these skills has a self-regulation component involved in successful performance. Additionally, a large majority of teachers endorsed as necessary for readiness each of the following skills that also are typically associated with effective self-regulation: taking turns (68.1%); listening to a story for ten minutes without restlessness (59.7%); being sensitive to other children's feelings (59.7%); maintaining positive behavior (66.7%); complying with requests (68.1%; transitioning from one activity to another without problems (59.2%); modifying behavior when provided with verbal directions (66.7%); seeking out an adult if unable to handle social situations (62.5%); and interacting cooperatively with others in groups (62.5%). It is of equal importance that all of these skills associated with self-regulation were rated as

necessary by a larger percentage of teachers than were any of the cognitive and basic academic skills on the list, such as understanding word meaning/using appropriate vocabulary (41.7%); writing both upper and lower case letters (41.7%); counting to 20 or above (44.4%); and producing rhyming words (37.5%).

Can Self-Regulation Skills be taught? The eighth research question examined teacher perceptions about whether or not self-regulation executive functions can be taught to students who do them poorly. Of the 33 self-regulation skills listed, 90 percent or more of the respondents indicated that 22 of these 33 could be taught, and 80-89 percent of the respondents indicated that another eight of the 33 could be taught. The three skills thought to be difficult to teach by the greatest number of teachers were resisting acting on impulse (21%), accurately estimating how difficult a task is going to be (35.2%), and accurately estimating the amount of time needed to complete tasks (31.9%).

Teacher Familiarity with Programs Designed to Increase Self-Regulation. The ninth question asked teachers to indicate their degrees of familiarity with kindergarten educational programs that target the development of children's self-regulation capacities. There were four specific program identified in the literature review that were listed on the questionnaire. A large majority of teachers indicated a lack of familiarity with three of the four programs: Tools of the Mind (77.3%), the Waldorf program (69.7%), and the REDI program (80%). Only the Montessori Curriculum was familiar to these teachers (95.8%).

Teacher Training Related to Self-Regulation Executive Functions. The final research question asked about teachers' training in relation to executive functions. Very

few of the respondents (17.4%) indicated having had actual training regarding executive functions.

Conclusion. Overall, the results of the study gave good insight into the characteristics of kindergarten teachers, their classrooms, and the curriculum they follow.

The responses of a large majority of teachers indicated that they think that self-regulation skills are necessary for kindergarten. In fact, self-regulation skills were identified as necessary for readiness more frequently than many cognitive and academic skills. Additionally, 80-90% of teachers identified 30 of the 33 self-regulatory executive functions as skills that could be taught to students who do them poorly. Despite this acknowledgment of the importance and teachability of self-regulation executive functions, what is not clear from the survey responses is the extent to which teachers actually do teach self-regulation skills.

The open-ended questions allowed for more varied answers, extending the limiting nature of the multiple choice format to a greater in-depth perspective that only the respondents could provide. The open-ended question related to the kinds of activities used to teach self-regulation skills was particularly enlightening because it revealed that what most teachers perceived to be self-regulation teaching activities are in actuality systems designed for externally regulating students' behaviors. For example, teachers implemented positive behavior support, which is a structure that typically emphasizes the use of rewards and punishments to control behavior; it is used much more frequently than specific instructional activities that teach students how to change their behavior through self-regulation. Equally concerning is the fact that most respondents indicated that they were not familiar with educational programs that specifically focus on the teaching of

self-regulation and an equally large majority of teachers had not attended any training on executive functions.

In relation to the teaching and training experience of teachers, the educational literature suggests that several teacher characteristics have an influence on the performances of students (Goldhaber & Brewer, 2012). For one, teachers with more teaching experience were found to influence students more decidedly than new teachers; the so-called perceptual maps of experienced teachers were more complex and organized hierarchically and those of inexperienced teachers tended to be simpler and non-hierarchical (Tan, 1996). The knowledge and expertise of teachers have been found to be significantly related to the academic progress of students (Hill, Rowan, & Ball, 2005). Teacher professional development was deemed an important factor in student achievement. Cassidy, Buell, Pugh-Hoese, and Russell (1995) discovered teachers who had relevant college coursework are more likely to have students who have notable developmental gains on the Early Childhood Environment Rating Scales (ECERS) or the Infant-Toddler Environment Rating Scales (ITERS); these scales are designed to assess the quality of the processes involved in early childhood care groups.

The lack of training on executive functions indicated by the respondents of this study may have a negative impact on these teachers' effectiveness in teaching self-regulation skills (Gibbs & Coffey, 2004). Moreover, Megay-Nespoli (2001) states that trained kindergarten teachers, particularly those who are teaching special needs and gifted children, exhibit better teaching skills and produce an environment more conducive to learning because they put more emphasis on higher level thinking skills than on monologue lectures. Such may also be the case if teachers are provided training in early

childhood programs that allow them to address issues on self-regulation and school readiness.

There are other factors that affect students' acquisition of self-regulation skills. Stipek (2004) studied the influence of student and classroom demographics on the quality of classroom instruction. Results indicated that schools serving comparatively larger numbers of children from low-income and ethnic minority families were rated by teachers as having less supportive community atmospheres. Because of this, teachers place more emphasis on teaching basic skills through more informative teaching and less constructivist teaching practices. At the classroom level, teaching plans were influenced by teachers' goals, the ethnic make-up of their classrooms, and the degree to which teachers perceived the families of the children in their classrooms to have challenges associated with poverty. Informative or didactic teaching was generally used in classrooms with higher proportions of African–American students. Moreover, these teachers believed that poverty-related troubles have negatively affected parents in actively monitoring their children's education. On the other hand, constructivist teaching was primarily used in classrooms with high proportions of Caucasian children. Given the survey responses indicating that a large proportion of the kindergarten students being taught are from ethnic minority groups, it is possible that these additional factors are impacting teachers' perceptions about what and how to teach the students in their classes.

According to Blair (2002), kindergarten teachers were more highly concerned with the social and emotional aspects of self-regulation than with the academic aspects. Graziano et al. (2010) stated that the ability to regulate emotions was the major self-regulation skill that determines whether or not a child is able to develop and mature

normally. Several educational programs have been designed for implementation with kindergarten students. However, only a few of these programs address self-regulation skills. In helping develop such skills in children, there is a need for teachers to familiarize themselves with relevant and effective programs. Blair and Diamond (2008) state that implementing early childhood educational programs can, in effect, associate emotional and motivational arousal with customized actions that exercise and encourage the development of executive functions, thereby delivering an effective means of increasing self-regulation, school readiness, and school success.

Limitations of the Study

This study has several limitations, one of which is the process used for identifying the kindergarten teachers that served as respondents. Participation in the study was voluntary and depended on direct contact by the researcher or other school psychologists that agreed to assist the researcher in recruiting respondents. No statistical sampling plan was used to assure a stratified sample of teachers across all five boroughs of the city; therefore, the results may not be used to generalize about particular boroughs in New York City or about kindergarten teachers in the whole of New York City or beyond New York City. Additionally, the number of respondents represents a very small fraction of the total number of kindergarten teachers within the city, greatly reducing the generalizability of findings.

Another limitation is the research instrument. Although in itself, the questionnaire was able to provide this study with the necessary information needed to meet the study objectives; there are aspects that could have been improved and questions that could have been included to obtain more in-depth information.

The research also focused on kindergarten students in general, including special needs children. The results, therefore, may have differed if the research focused on general needs or on special needs children only because the teachers have reported teaching both types of classes. Likewise, differentiating between private and public schools might bear significant influence on the results.

Implications for Practice

Survey responses suggested that the respondents were well-educated, having taken relevant courses on early childhood education and have gained valuable experience through several years of teaching. However, their lack of familiarity with new educational programs and lack of training on executive functions can greatly affect teaching skills and effectiveness as a teacher. Therefore, refresher courses, seminars, and training should be conducted to keep the teachers abreast of current trends in early childhood education. Moreover, print materials such as brochures, booklets, and pamphlets describing relevant educational programs should be reproduced and provided to the teachers for their personal use. These trainings and readings could very well help these teachers better impart their knowledge to their students.

The teachers have little or no familiarity with early childhood programs that focus on teaching self-regulation, except for the Montessori Curriculum. According to Barnett et al. (2008), utilizing a curriculum that is developmentally appropriate while being able to integrate play can improve a child's learning and development as well as his or her social and academic success. Because of this, being unfamiliar with early childhood education programs that teach self-regulation might mean these teachers are unable to guide their students to their full potentials. For instance, the Tools of the Mind program

was found to help improve other aspects of cognitive development, particularly language development, as well as children's executive functions (Barnett et al., 2008). Moreover, Tools of the Mind makes use of dramatic play that supports and progressively challenges daily the use of executive functions skills such as inhibitory control, working memory, and cognitive flexibility (Diamond et al., 2007). In neuropsychology, executive functions and overt to covert behavioral responses are means of self-regulation because these cognitive skills "serve to shift the control of behavior from the immediate context, social others, and the temporal now to self-regulation by internal representations regarding the hypothetical social future" (Barkley, 2001, p.2). If teachers are unable to use such programs with their students, they might not be able to help their students achieve optimum learning. It is not imperative, though, that teachers use only the Tools of the Mind program, because there are other programs that also have proven to be effective in a helping develop students' self-regulation capacities.

Future Research

Future researchers can use the results of this study to inform the planning and development of their own studies. Moreover, they could replicate this study with improved methodology. Instead of purposively choosing kindergarten teachers based on their availability, future researchers could use stratified random sampling, gathering proportional samples from each of the five boroughs of New York City in order for the results to be more reliable and valid.

The research questionnaire also could be improved for future research studies. More open-ended questions may be included to capture a deeper and more qualitative insight into teachers' perspectives. Better yet, the use of another research method could

complement the use of survey questionnaires; researchers might utilize one-on-one interviews or focus group discussions in which the respondents would further clarify the results coming from a quantitative questionnaire. Such activity would make the approach to data collection more personal. Moreover, new themes and issues might arise from interviews and discussions, and these could contribute to future research.

Future researchers also may look at specific early childhood programs and their effect on the cognitive skills and executive functions of children. For example, future researchers may focus on the Tools of the Mind program and its ability to help develop children's self-regulation skills in particular. The future research can focus on kindergarten children from specific boroughs in New York, or from private schools in the city.

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Appendix: Kindergarten Teacher Survey

NOTE: You are not required to provide your name for this survey. This survey information is being collected for research purposes. You or your responses will not be personally identified in any way in this research.

What is your Gender?

_____Female

_____Male

Please specify your age range.

_____20-30

_____31-40

_____41-50

_____51-60

_____60+

How many years have you been teaching? _____

How many years have you been teaching Kindergarten? _____

What other grades have you taught? _____

Did you major in early childhood education in college or graduate school?

_____Yes

_____ No

How many courses in early childhood education have you completed? _____

The majority of the kindergarten students that I am teaching now are of the following ethnic background(s):

_____ Caucasian

_____ Asian

_____ African American

_____ Hispanic/Non white

_____ Other: Please specify _____

The students I teach are:

____ general education students who are not receiving additional services

____ students who are receiving special education or other services

____ mostly general education with some student receiving additional services

____ mostly student receiving additional services with some general education students

How large is your current Kindergarten classroom enrollment? _____

My classroom instruction is based on a curriculum that

___ I have created

____ is used school-wide

____ is used district-wide

___ Other: _____

To what extent have you been given the flexibility to modify your curriculum to meet the specific needs of the children you teach?

____ No flexibility

____ Some flexibility

____ A lot of flexibility

Do you have any special programs or activities in your curriculum that directly address any of the following?

Assisting English Language Learners ___ Yes ___No

If yes, briefly describe:

_____

Assisting children with special needs? ___ Yes ___No

If yes, briefly describe:

_____

Developing children's self-regulation skills? ___ Yes ___No

If yes, briefly describe:

_____

What is the most personally rewarding or enjoyable aspect of being a kindergarten teacher?

_____

_____

What assessment benchmarks, standards, or procedures do you use to determine whether a child is ready for Kindergarten?

_____

_____

How does children's lack of readiness skills impact you as a teacher and your instructional planning?

_____

_____

How necessary do you think each of the following is for readiness for Kindergarten?

Skill	Necessary	Very helpful but not necessary	Somewhat helpful but not necessary	Not Necessary
Communicating needs./wants/thoughts in primary language				
Taking turns/sharing				
Not being disruptive				
Listening to a story or poem for 10 minutes without restlessness				
Following specific directions				
Expressing needs/thoughts				

Being sensitive to other children's feelings				
Problem Solving				
Maintaining positive behavior				
Skill	Necessary	Very helpful but not necessary	Somewhat helpful but not necessary	Not Necessary
Complying with the requests of teachers and authority figures				
Knowing how to get along with others				
Sustaining attention and effort with difficult tasks				
Acting responsibly				
Exhibiting self-control				
Working independently				
Transitioning from one activity to another without problems				
Adjusting to new situations without being fearful				
Demonstrating independence by completing activities/tasks on own				
Following two step directions				
Modifying behavior when provided with verbal directions				
Seeking out an adult if unable to handle social situations				
Respecting the rights of others by keeping hands to self/keeping to own "space".				
Separating from parent without anxiety				
Interacting cooperatively with others in groups				
Understanding word meaning/using appropriate				

vocabulary				
Reading three-letter sight words				
Showing initiative: beginning tasks on own				
Writing first and last name				
Identifying colors and basic geometric shapes				
Skill	Necessary	Very helpful but not necessary	Somewhat helpful but not necessary	Not Necessary
Writing both upper and lower case letters				
Speaking in sentences of 5 or more words.				
Knowing most letters names				
Identifying numbers 1-10				
Counting to 20 or above				
Retelling familiar stories				
Producing rhyming words				
Identifying major body parts				
Naming the days of the week				
Anticipating what is going to happen next in class				
Recognizing and stating similarities and differences between objects				
Understanding concepts of time/associating activities with time of the day				
Telling a story of their own				

Do you think the following could be taught if a child does it poorly?

	Yes, can be taught	No, cannot be taught
Being aware of surroundings		

	Yes, can be taught	No, cannot be taught
Paying attention to instruction		
Sustaining attention long enough to complete tasks		
Putting effort into completing tasks		
Getting started on tasks without prompting		
Resisting acting on impulse		
Stopping when told to do so		
Interrupting ongoing activity when asked to do so		
Being flexibly open to changes in routines		
Shifting from one activity to another without problems		
Keeping behavior within the limits set for an activity		
Having a good sense of balance about things (for example, not too silly but not too serious)		
Checking work for errors		
Correcting errors when they are found		
Anticipating what is going to happen next in class		
Accurately estimating how difficult a task is going to be		
Accurately estimating amount of time needed to complete tasks		
Analyzing problems or situations when necessary		
Making comparisons and evaluate the adequacy of task performance		
Making associations between what was learned and what is now being taught		
Generating new solutions to problems that have not been seen before		
Making a plan for accomplishing a project or assignment		
Organizing work on projects and other assignments		
Making good choices and decisions		
Identifying which of two activities is the more important to do right now		

	Yes, can be taught	No, cannot be taught
Having a good sense of time		
Maintaining a good work pace		
Using learned routines effectively		
Getting the steps right in tasks, put things in the right order		
Holding onto information (not require a lot of repetition of directions)		
Working with information in mind without needing to write things down		
Knowing what information to store for later use		
Recalling important information without being asked to do so		

How familiar are you with the following Preschool Educational Programs?

Program	I have heard of this program	I have heard of this program and have read about it	I have never heard of this program
Tools of the Mind			
The Montessori curriculum			
Waldorf Program			
REDI			

Have you attended any training on Executive Function skills in students?

_____ Yes
_____ No